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NTISUB/B/139-76/011

LANDSAT

NON-U.S. STANDARD CATALOG

1 NOVEMBER 1976

THROUGH

30 NOVEMBER 1976

GSFC/LN-76/011

GODDARD SPACE FLIGHT CENTER

GREENBELT, MARYLAND

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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INTRODUCTION

To provide dissemination of information regarding the availability of Landsat imagery, the Image Processing Facility (IPF), located at the Goddard Space Flight Center, publishes a U. S. and Non-U. S. Standard Catalog on a monthly schedule. These catalogs identify imagery which has been processed and input to the data files during the referenced month. The U. S. Standard Catalog includes imagery covering the continental United States, Alaska and Hawaii; the Non-U. S. Catalog identifies all the remaining coverage. Imagery adjacent to the continental U. S. and Alaska borders will normally appear in the U. S. Standard Catalog. As a supplement to these catalogs, the Landsat imagery of one spectral band is available on 16mm microfilm.

In addition to the routine monthly catalogs, the IPF annually publishes a cumulative U. S. and Non-U. S. Standard Catalog for each satellite, covering a year based on the launch date for that satellite. These catalogs include information on all observations acquired and processed by the facility during that year.

Film products for imagery listed in this catalog are available at a nominal price from all three agencies listed below. In addition, the 16mm microfilm can be purchased from the U. S. Department of the Interior (USDI) EROS Data Center and National Oceanic and Atmospheric Administration (NOAA). Digital tapes can be purchased only from the USDI EROS Data Center.

U. S. Department of Agriculture

Aerial Photography Field Office
2505 Parley's Way
Salt Lake City, Utah 84109

U. S. Department of Commerce National Oceanic and Atmospheric Administration

Environment Data Service
Satellite Data Service Branch
D543
World Weather Building
Room 606
Washington, D. C. 20233

U. S. Department of the Interior Geological Survey

User Services Unit
EROS Data Center
Sioux Falls, South Dakota 57198

INDEX

SECTION 1 DESCRIPTION OF STANDARD CATALOG

SECTION 2 DESCRIPTION OF MICROFILM

SECTION 3 CYCLE CHARTS

SECTION 4 LANDSAT 1 COVERAGE

Coverage Maps

Observation ID Listing

Contiguous U. S.

Alaska

Hawaii

Coordinate Listing

Contiguous U. S.

Alaska

Hawaii

SECTION 5 LANDSAT 2 COVERAGE

Coverage Maps

Observation ID Listing

Contiguous U. S.

Alaska

Hawaii

Coordinate Listing

Contiguous U. S.

Alaska

Hawaii

APPENDIX

SECTION 1 - STANDARD CATALOG

1.1 MONTHLY CATALOGS

The coverage sections contained in the monthly U.S. and Non-U.S. Standard Catalogs are divided into three parts. Part 1 (see Para. 1.1.A) consists of annotated maps which graphically depict the geographic areas covered by imagery listed in the current catalog. Part 2 (see Para. 1.1.B) contains a computer generated listing organized by observation identification number (ID) and includes pertinent information about each image. Part 3 (see Para. 1.1.C) provides a computer listing of observations organized by longitude/latitude.

A. Satellite Coverage Maps. These maps are segregated by cycle and depict the general location of observations listed in the catalog. The format and data content of these maps are slightly different in the U.S. and Non-U.S. catalogs.

1. U.S. Satellite Coverage Maps. Two separate map formats are presented in this catalog. One map outlines the continental U.S. and depicts the estimated cloud cover along each north to south subsatellite path. Each path is identified by actual orbit number and a cross reference, which matches the orbit number to the initial observation ID for that path. The second map provides an enlarged view of Alaska and Hawaii and displays the portion of an orbital pass for which coverage is available. This map does not include cloud cover estimates or orbit numbers.

2. Non-U.S. Satellite Coverage Map. A world outline map is provided with the portions of an orbital swath for which observations are available graphically displayed. This map is intended solely to inform the user as to whether or not coverage is included in the catalog for his area of interest. It is not intended as a rapid reference to specific observations.

B. Observation Identification Number (ID) Listing. The data format for the observation ID listing is identical in the U.S. and Non-U.S. Catalogs. Observation ID numbers are listed in a sequential manner from smallest number to largest. Associated with each ID number in the list is pertinent information about that observation. A sample catalog page with a description of each data item is shown in Figure 1-1.

1. Sample Observation ID Format. See Figure 1-1.

OBSERVATION ID	MICROFILM ROLL NO./ POSITION IN ROLL RBV	DATE ACQUIRED	CLOUD COVER	ORBIT NUMBER	PRINCIPAL POINT OF IMAGE LAT	SUN ELEV	SUN AZIM	IMAGE QUALITY RBV	MSS
1943-16381	00000/0000	02/21/75	100	3149	4728N	25.3	143.8	123	45678
1943-16383	00000/0000	02/21/75	100	3149	4603N	26.3	143.9		GGGG
1943-16390	00000/0000	02/21/75	100	3149	4438N	27.2	143.0		GGG
1943-16392	00000/0000	02/21/75	70	3149	4313N	28.2	143.1		GGG
1943-16395	00000/0000	02/21/75	40	3149	4147N	29.1	141.2		GGGG
1944-16432	00000/0000	02/22/75	40	3163	4854N	24.7	145.5		GGGG
1944-16435	00000/0000	02/22/75	40	3163	4730N	25.6	144.6		GGGG
1944-16441	00000/0000	02/22/75	30	3163	4605N	26.6	143.8		GGGG

KEY:
 CLOUD COVER
 0 TO 100 = % OF CLOUD COVER
 *** NO CLOUD DATA AVAILABLE
 IMAGE QUALITY
 BLANK = BAND NOT PRESENT/REQUESTED
 G = GOOD P = POOR F = FAIR

Figure 1-1. Observation ID Listing for Standard Catalog

2. Description of Data Items

- 1 Date of catalog listing
 - 2 Period during which imagery was processed
 - 3 Data quality
 - 4 Observation ID
- RBV and MSS microfilm roll and image position on roll; note: RBV and MSS images for a given observation may be on two different microfilm rolls
- Date of observation
 Estimated percent of cloud cover
 Orbit number
 Latitude and longitude at observation center (degrees and minutes)
 Sun elevation and azimuth at observation center
 Image quality; see key
- 1010 15165
- Tens of seconds
 Minutes of hour
 Hour of day since launch
 Day since launch
 Satellite number
 (1 or 5 = LANDSAT 1,
 2 or 6 = LANDSAT 2);
 see Appendix for full
 explanation

C. Longitude/Latitude Listing. The data format for the longitude/latitude listing is identical in the U.S. and Non-U.S. Catalogs. This listing contains the same observations as the observation ID listing but organizes them by coordinates, using image center location information for each observation. Observations in this listing will be sorted first by longitude and, within longitude, by latitude. The longitude/latitude listing is arranged in the following manner:

180-0 degrees East; 90-0 degrees North and 0-90 degrees South followed by

0-130 degrees West; 50-0 degrees North and 0-90 degrees South

This listing is intended to be used as a tool for locating specific coverage, and once a specific observation has been identified, pertinent information about it can be found by referring to the ID listing.

Figure 1-2 below shows a sample catalog page with a description of each data item.

1. Sample Longitude/Latitude Format. See Figure 1-2.

20 53 APR 04 75										FROM 02:01:35 TO 02:20:75									
1		2		3		4		5		6		7		8		9		10	
PRINCIPAL PT		OBSERVATION		CC		QUALITY		PRINCIPAL PT		OBSERVATION		CC		QUALITY		PRINCIPAL PT		OBSERVATION	
CC	MC	LAT	LONG	LAT	LONG	LAT	LONG	LAT	LONG	LAT	LONG	LAT	LONG	LAT	LONG	LAT	LONG	LAT	LONG
23500	3608N		1940-18174	80	GJFF	1242130	3855N	1925-18132	70	GJGG	1251230	4438N	1925-18230	90	GJGG				
23520	4027N		1941-18120	100	GJGG	1242130	4501N	1925-18124	90	GJGG	1251230	4022N	1924-18183	50	11FF				
23520	4027N		1923-18125	90	11FF	1244730	4147N	1924-18181	80	GJ11	1252730	4722N	1926-18275	60	11FF				
24010	4726N		1923-18121	90	GJGG	1244930	3736N	1924-18125	90	11GG	1254030	4311N	1925-18133	90	GJGG				
24016	4313N		1924-18174	70	11FF	1244930	3729N	1924-18134	70	11FF	1254030	3855N	1924-18190	50	GJGG				
24210	3901N		1941-18123	100	11GG	1245130	4852N	1926-18273	90	GGGG	1260230	4403N	1926-18282	70	1GGG				

KEY

● TO 100% OF CLOUD COVER

● NO CLOUD DATA AVAILABLE

IMAGE QUALITY

● BLANK = BAND NOT PRESENT REQUESTED

● G, GGGG, P = POOR, 1 = AIR

Figure 1-2. Coordinate Listing for Standard Catalog

2. Description of Data Items

- ① Date of catalog listing
- ② Period during which imagery was processed
- ③ Longitude and latitude at observation center (degrees and minutes)
- ④ Observation ID (see Fig. 1-1, Para. 1.1, B, 2)
- ⑤ Estimated percent of cloud cover
- ⑥ Image quality; see key
- ⑦ Data quality

1.2 CUMULATIVE STANDARD CATALOGS

Annually, a cumulative catalog is produced which includes information covering all observations and coordinates acquired and processed by the IPF during that year.

A. Observation ID Listing.

1. Sample Observation ID Format. See Figure 1-1.
2. Description of Data Items. See Paragraph 1.1, B, 2.

B. Coordinate ID Listing. The coordinate ID listing format is expanded to identify observations for which color or digital products have been made.

1. Sample Coordinate ID Format. See Figure 1-3.

(1) 15:36 MAR 11, '74		(2) FROM 05:23.72 TO 07:23.74										
(9)	(4)	(5)	(6)	(7)	(8)	(10)	(11)	(12)				
PRINCIPAL POINT OF IMAGE LONG LAT	OBSERVATION ID	MICROFILM ROLL NO./ POSITION IN ROLL RBV MSS	DATE ACQUIRED	CLOUD COVER %	ORBIT NUMBER	SUN ELEV.	SUN AZIM.	IMAGE QUALITY RBV MSS	PRODUCTS B P P P C C D D			
07607W 3734N	1295-15144	00000/00000	05/14/73	20	4112	60.2	122.0	GGGG	M			
07607W 3731N	1259-15150	00000/00000	04/08/73	90	3610	50.7	133.2	GGGG	M			
07607W 3731N	1313-15143	00000/00000	06/01/73	80	4363	62.3	116.2	GGGG	M			
07608W 4438N	1027-15231	00000/00000	08/19/72	0	375	52.9	136.9	GGGG	M			
07608W 3731N	1331-15142	00000/00000	06/19/73	100	4614	62.4	112.8	GGGG	M			
07608W 3724N	1349-15141	00000/00000	07/07/73	10	4865	61.2	112.9	GGGG	M			
07609W 4851N	1352-15275	00000/00000	07/10/73	60	4907	56.7	133.9	GGGG	M			
07609W 3144N	1006-15093	1-10001/0377	07/29/72	100	82	59.7	109.3	GGGG	M			

(3) KEY:

CLOUD COVER
● 0 TO 100 = % OF CLOUD COVER

IMAGE QUALITY

● BLANK = BAND NOT PRESENT/REQUESTED
● G = GOOD P = POOR F = FAIR

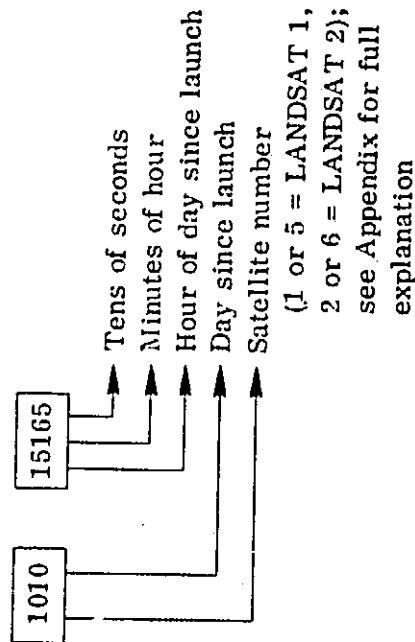
PRODUCTS ALREADY MADE

● R = MADE FROM REV M = MADE FROM MSS
B = MADE FROM REV AND MSS

Figure 1-3. Coordinate Listing for Cumulative Standard Catalog

2. Description of Data Items

- ① Date of catalog listing
- ② Period during which imagery was processed
- ③ Data quality
- ④ Observation ID



- ⑤ RBV and MSS microfilm roll and image position on roll; note: RBV and MSS images for a given observation may be on two different microfilm rolls
- ⑥ Date of observation
- ⑦ Estimated percent of cloud cover
- ⑧ Orbit number
- ⑨ Latitude and longitude at observation center (degrees and minutes)
- ⑩ Sun elevation and azimuth at observation center
- ⑪ Image quality; see key
- ⑫ Image/data product availability; see key

2.1 GENERAL

The Image Processing Facility produces a 16 mm microfilm inventory of imagery processed during the referenced month and is organized for convenient use with the Standard Catalog.

As in the case of the Standard Catalog, the microfilm data is divided into U.S. and Non-U.S. segments. Each set of microfilm images is in exact correspondence to a Standard Catalog and can be used in conjunction with the catalog for selecting desired images. A maximum of 1900 images will be contained on one roll of 16 mm x 100 ft microfilm. Because the microfilm images are intended to provide only a summary of the data available, the images are limited to one band each for the RBV and MSS. Although a single observation will produce seven images, in the production of microfilm only the RBV Spectral Band 2 images (0.580 - 0.680 microns) and MSS Spectral Band 2 images (0.6 - 0.7 microns) are reproduced. Each image is a photograph of a 70 mm (-2) image and contains the image identifier and annotation block. See Figure 2-1.

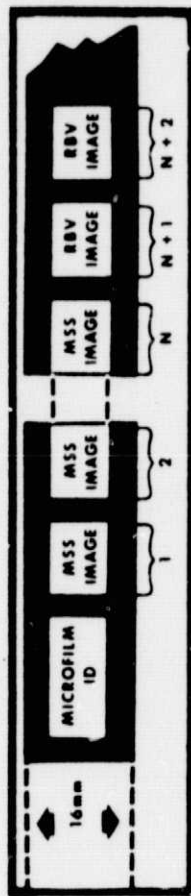


Figure 2-1. Microfilm Format

Microfilm roll numbers contain six digits. The first digit designates the satellite number (blank or 1 - LANDSAT 1, 2 - LANDSAT 2). Example: Roll number 10032 and roll number 1-10034 are both LANDSAT 1 rolls. Roll 2-10032 is a LANDSAT 2 roll. The second digit will be a 1 (for U.S. rolls) or a 2 (for Non-U.S. rolls). The remaining digits are used to number sequentially all microfilm rolls prepared within each group. Example: Roll number 10001 is the first U.S. roll of microfilm produced for LANDSAT 1. Roll number 20004 is the fourth Non-U.S. roll to be produced for LANDSAT 1. The first U.S. roll of microfilm for LANDSAT 2 is number 2-10001.

The microfilm contains two rapid search capabilities to help the user quickly reach the desired scene. They are:

- Code Line Indexing
- Blip Encoding

2.2 CODE LINE INDEXING

The Landsat microfilm images have been annotated with visual code lines to the right of each frame. The visual code lines graduate up the edge of the screen as the film advances and allow the user to advance rapidly to within 20 frames of his desired image. See Figure 2-2.

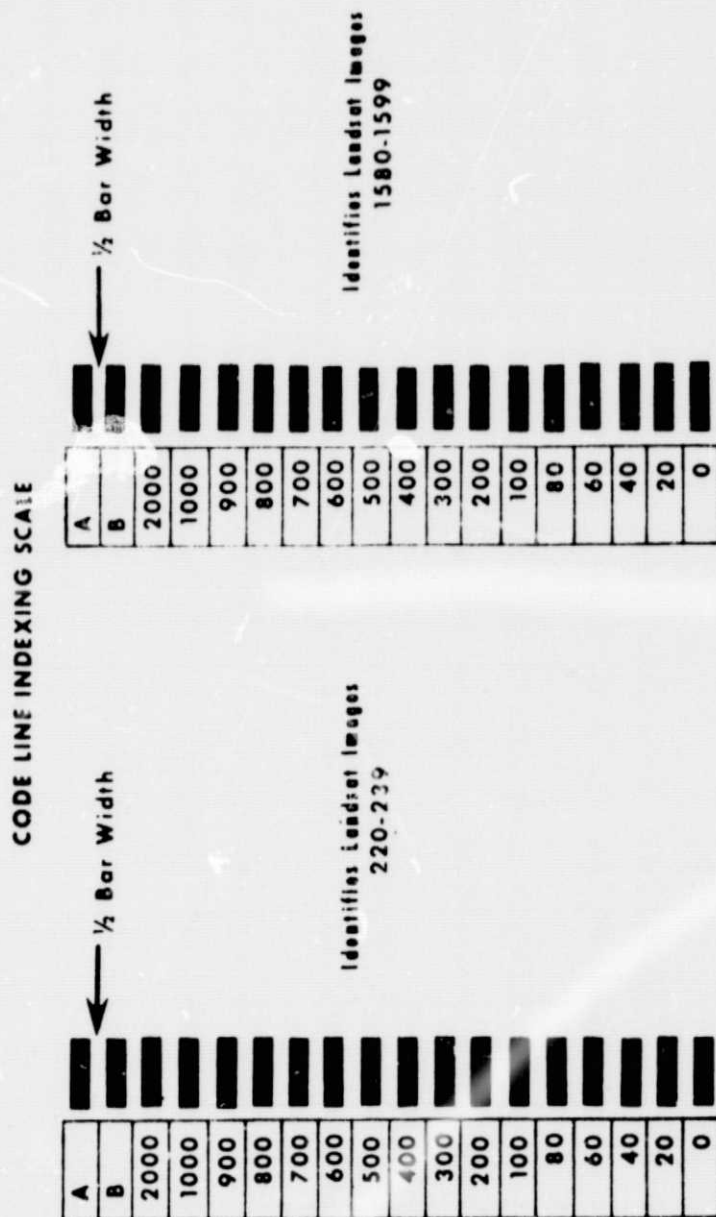


Figure 2-2. Code Line Indexing Scale

To utilize this system, a user must generate a code line indexing bar scale to attach to the face of his viewers. The size and spacing for the bar scale is dependent upon the magnification of his viewer. Landsat imagery is microfilmed at a reduction ratio of 8.5x. To determine the overall length of a scale required for your microfilm reader, multiply 7.4 mm by the enlargement factor of your lens. To determine the bar widths along the bar scale, Multiply 0.24 mm by the same factor. A space between each bar should exist that is 1/2 the bar width.

SECTION 3 - CYCLE CHARTS

SECTION 3.1 - LANDSAT 1 CYCLES

Cycle	Days Since Launch		Calendar Date		Cycle	Days Since Launch		Calendar Date	
	Begin	End	Begin	End		Begin	End	Begin	End
First 8 days	1	8	24 Jul 72	31 Jul 72	16	279	296	28 Apr 73	15 May 73
1	9	26	1 Aug 72	18 Aug 72	17	297	314	16 May 73	2 Jun 73
2	27	44	19 Aug 72	5 Sep 72	18	315	332	3 Jun 73	20 Jun 73
3	45	62	6 Sep 72	23 Sep 72	19	333	350	21 Jun 73	8 Jul 73
4	63	80	24 Sep 72	11 Oct 72	20	351	368	9 Jul 73	26 Jul 73
5	81	98	12 Oct 72	29 Oct 72	21	369	386	27 Jul 73	13 Aug 73
6	99	116	30 Oct 72	16 Nov 72	22	387	404	14 Aug 73	31 Aug 73
7	117	134	17 Nov 72	4 Dec 72	23	405	422	1 Sep 73	18 Sep 73
8	135	152	5 Dec 72	22 Dec 72	24	423	440	19 Sep 73	6 Oct 73
9	153	170	23 Dec 72	9 Jan 73	25	441	458	7 Oct 73	24 Oct 73
10	171	188	10 Jan 73	27 Jan 73	26	459	476	25 Oct 73	11 Nov 73
11	189	206	28 Jan 73	14 Feb 73	27	477	494	12 Nov 73	29 Nov 73
12	207	224	15 Feb 73	4 Mar 73	28	495	512	30 Nov 73	17 Dec 73
13	225	242	5 Mar 73	22 Mar 73	29	513	530	18 Dec 73	4 Jan 74
14	243	260	23 Mar 73	9 Apr 73	30	531	548	5 Jan 74	22 Jan 74
15	261	278	10 Apr 73	27 Apr 73	31	549	566	23 Jan 74	9 Feb 74

SECTION 3.1 — LANDSAT 1 CYCLES

Cycle	Days Since Launch		Calendar Date		Cycle	Days Since Launch		Calendar Date	
	Begin	End	Begin	End		Begin	End	Begin	End
32	567	584	10 Feb 74	27 Feb 74	48	855	872	25 Nov 74	12 Dec 74
33	585	602	28 Feb 74	17 Mar 74	49	873	890	13 Dec 74	30 Dec 74
34	603	620	18 Mar 74	4 Apr 74	50	891	908	31 Dec 74	17 Jan 75
35	621	638	5 Apr 74	22 Apr 74	51	909	926	18 Jan 75	4 Feb 75
36	639	656	23 Apr 74	11 May 74	52	927	944	5 Feb 75	22 Feb 75
37	657	674	12 May 74	28 May 74	53	945	962	23 Feb 75	12 Mar 75
38	675	692	29 May 74	15 Jun 74	54	963	980	13 Mar 75	30 Mar 75
39	693	710	16 Jun 74	3 Jul 74	55	981	998	31 Mar 75	17 Apr 75
40	711	728	4 Jul 74	21 Jul 74	56	999	1016	18 Apr 75	5 May 75
41	729	746	22 Jul 74	8 Aug 74	57	1017	1034	6 May 75	23 May 75
42	747	764	9 Aug 74	26 Aug 74	58	1035	1052	24 May 75	10 Jun 75
43	765	782	27 Aug 74	13 Sep 74	59	1053	1070	11 Jun 75	28 Jun 75
44	783	800	14 Sep 74	1 Oct 74	60	1071	1088	29 Jun 75	16 Jul 75
45	801	818	2 Oct 74	19 Oct 74	61	1089	1106	17 Jul 75	3 Aug 75
46	819	836	20 Oct 74	6 Nov 74	62	1107	1124	4 Aug 75	21 Aug 75
47	837	854	7 Nov 74	24 Nov 74	63	1125	1142	22 Aug 75	8 Sep 75

SECTION 3.1 -- LANDSAT 1 CYCLES

Cycle	Days Since Launch		Calendar Date		Cycle	Days Since Launch		Calendar Date	
	Begin	End	Begin	End		Begin	End	Begin	End
64	1143	1160	9 Sep 75	26 Sep 75	80	1431	1448	23 Jun 76	10 Jul 76
65	1161	1178	27 Sep 75	14 Oct 75	81	1449	1466	11 Jul 76	28 Jul 76
66	1179	1196	15 Oct 75	1 Nov 75	82	1467	1484	29 Jul 76	15 Aug 76
67	1197	1214	2 Nov 75	19 Nov 75	83	1485	1502	16 Aug 76	2 Sep 76
68	1215	1232	20 Nov 75	7 Dec 75	84	1503	1520	3 Sep 76	20 Sep 76
69	1233	1250	8 Dec 75	25 Dec 75	85	1521	1538	21 Sep 76	8 Oct 76
70	1251	1268	26 Dec 75	12 Jan 76	86	1539	1556	9 Oct 76	26 Oct 76
71	1269	1286	13 Jan 76	30 Jan 76	87	1557	1574	27 Oct 76	13 Nov 76
72	1287	1304	31 Jan 76	17 Feb 76	88	1575	1592	14 Nov 76	1 Dec 76
73	1305	1322	18 Feb 76	6 Mar 76	89	1593	1610	2 Dec 76	19 Dec 76
74	1323	1340	7 Mar 76	24 Mar 76	90	1611	1628	20 Dec 76	6 Jan 77
75	1341	1358	25 Mar 76	11 Apr 76	91	1629	1646	7 Jan 77	24 Jan 77
76	1359	1376	12 Apr 76	29 Apr 76	92	1647	1664	25 Jan 77	11 Feb 77
77	1377	1394	30 Apr 76	17 May 76	93	1665	1682	12 Feb 77	1 Mar 77
78	1395	1412	18 May 76	4 Jun 76	94	1683	1700	2 Mar 77	19 Mar 77
79	1413	1430	5 Jun 76	22 Jun 76	95	1701	1718	20 Mar 77	6 Apr 77

SECTION 3.2 - LANDSAT 2 CYCLES

Cycle	Days Since Launch		Calendar Date		Cycle	Days Since Launch		Calendar Date	
	Begin	End	Begin	End		Begin	End	Begin	End
First 22 days	1	22	22 Jan 75	13 Feb 75	19	347	364	4 Jan 76	21 Jan 76
1	23	40	14 Feb 75	3 Mar 75	20	365	382	22 Jan 76	8 Feb 76
2	41	58	4 Mar 75	21 Mar 75	21	383	400	9 Feb 76	26 Feb 76
3	59	76	22 Mar 75	8 Apr 75	22	401	418	27 Feb 76	15 Mar 76
4	77	94	7 Apr 75	26 Apr 75	23	419	436	16 Mar 76	2 Apr 76
5	95	112	27 Apr 75	14 May 75	24	437	454	3 Apr 76	20 Apr 76
6	113	130	15 May 75	1 Jun 75	25	455	472	21 Apr 76	8 May 76
7	131	148	2 Jun 75	19 Jun 75	26	473	490	9 May 76	26 May 76
8	149	188	20 Jun 75	7 Jul 75	27	491	508	27 May 76	13 Jun 76
9	167	184	8 Jul 75	25 Jul 75	28	509	526	14 Jun 76	1 Jul 76
10	185	202	26 Jul 75	12 Aug 75	29	527	544	2 Jul 76	19 Jul 76
11	203	220	13 Aug 75	30 Aug 75	30	545	562	20 Jul 76	6 Aug 76
12	221	238	31 Aug 75	17 Sep 75	31	563	580	7 Aug 76	24 Aug 76
13	239	256	18 Sep 75	5 Oct 75	32	581	598	25 Aug 76	11 Sep 76
14	257	274	6 Oct 75	23 Oct 75	33	599	616	12 Sep 76	29 Sep 76
15	275	292	24 Oct 75	10 Nov 75	34	617	634	30 Sep 76	17 Oct 76
16	293	310	11 Nov 75	28 Nov 75	35	635	652	18 Oct 76	4 Nov 76
17	311	328	29 Nov 75	16 Dec 75	36	653	670	5 Nov 76	22 Nov 76
18	329	346	17 Dec 75	3 Jan 76	37	671	688	23 Nov 76	10 Dec 76

SECTION 4

LANDSAT 1 COVERAGE

NO LANDSAT 1 DATA HAS BEEN ACQUIRED DURING NOVEMBER.

SECTION 5

LANDSAT 2 COVERAGE

LANDSAT 2 OBSERVATION ID LISTING

17:18 DEC 17, '76

LANDSAT-2
OBSERVATION ID LISTING
FOR NON-US
FROM 11/01/76 TO 11/30/76

PAGE 0020

OBSERVATION ID	MICROFILM POSITION IN ROLL RBV	DATE ACQUIRED	CLOUD COVER NUMBER	PRINCIPAL POINT OF IMAGE LAT LONG	SUN ELEV. AZIM.	IMAGE QUAL RBV	MSS DATA IMAGE	MSS MODE GAIN
2641-01514	00000/0000 2-20035/0001	10/24/76	10	8929 3845N 11929E	32.9 146.1	FFFF		
2641-01521	00000/0000 2-20035/0068	10/24/76	30	8929 3720N 11900E	33.9 145.2	GGGG		
2641-01523	00000/0000 2-20035/0109	10/24/76	20	8929 3554N 11833E	34.9 144.3	GGGG		
2641-01530	00000/0000 2-20035/0110	10/24/76	30	8929 3429N 11806E	35.9 143.3	FFFF		
2641-01532	00000/0000 2-20035/0111	10/24/76	60	8929 3303N 11740E	36.9 142.3	GGGG		
2641-01535	00000/0000 2-20035/0112	10/24/76	90	8929 3137N 11714E	37.8 141.3	GGGG		
2641-01541	00000/0000 2-20035/0113	10/24/76	90	8929 3011N 11650E	38.8 140.3	GGGG		
2642-07015	00000/0000 2-20035/0114	10/25/76	80	8946 5707N 04848E	18.4 157.6	GGGG		
2642-07021	00000/0000 2-20035/0115	10/25/76	70	8946 5544N 04758E	19.5 156.7	GGGG		
2642-07024	00000/0000 2-20035/0116	10/25/76	70	8946 5420N 04710E	20.7 155.8	GGGG		
2642-07030	00000/0000 2-20035/0148	10/25/76	90	8946 5256N 04625E	21.8 154.9	GGGG		
2642-07033	00000/0000 2-20035/0149	10/25/76	90	8946 5132N 04543E	22.9 154.0	GGGG		
2642-07035	00000/0000 2-20035/0150	10/25/76	100	8946 5007N 04502E	24.0 153.2	GGGG		
2642-07042	00000/0000 2-20035/0151	10/25/76	90	8946 4843N 04424E	25.1 152.3	GGGG		
2642-07044	00000/0000 2-20035/0152	10/25/76	90	8946 4718N 04348E	26.2 151.5	GGGG		
2642-07051	00000/0000 2-20035/0153	10/25/76	100	8946 4553N 04314E	27.2 150.7	GGGG		
2642-07053	00000/0000 2-20035/0154	10/25/76	90	8946 4428N 04241E	28.3 149.8	GGGG		
2642-07060	00000/0000 2-20035/0155	10/25/76	90	8946 4304N 04209E	29.4 149.0	GGGG		
2642-07062	00000/0000 2-20035/0156	10/25/76	90	8946 4139N 04137E	30.4 148.1	GGGG		
2642-08441	00000/0000 2-20035/0157	10/25/76	60	8947 5953N 02449E	16.1 159.6	GGGG		
2642-08444	00000/0000 2-20035/0158	10/25/76	60	8947 5830N 02352E	17.3 158.6	GGGG		
2642-08450	00000/0000 2-20035/0159	10/25/76	10	8947 5707N 02258E	18.4 157.6	GGGG		
2642-08453	00000/0000 2-20035/0160	10/25/76	30	8947 5543N 02207E	19.5 156.7	GGGG		
2642-08455	00000/0000 2-20035/0161	10/25/76	30	8947 5420N 02120E	20.6 155.8	GGGG		
2642-12340	00000/0000 2-20035/0138	10/25/76	90	8949 2006S 05142W	51.7 84.3	GGGG		
2642-12343	00000/0000 2-20035/0139	10/25/76	90	8949 2131S 05204W	51.3 82.6	FFFF		
2642-12354	00000/0000 2-20035/0140	10/25/76	90	8949 2549S 05311W	49.8 78.0	GGGG		
2642-12361	00000/0000 2-20035/0141	10/25/76	100	8949 2715S 05335W	49.3 76.5	GGGG		
2642-12363	00000/0000 2-20035/0142	10/25/76	70	8949 2840S 05358W	48.7 75.1	GGGG		
2642-12370	00000/0000 2-20035/0143	10/25/76	50	8949 3006S 05423W	48.0 73.8	GGGG		
2642-22554	00000/0000 2-20035/0144	10/25/76	60	8955 2716S 15131E	49.4 76.7	GGGG		
2642-22563	00000/0000 2-20035/0145	10/25/76	90	8955 3006S 15044E	48.1 74.0	GGGG		
2642-22570	00000/0000 2-20035/0146	10/25/76	100	8955 3132S 15019E	47.5 72.7	GGGG		
2642-22572	00000/0000 2-20035/0147	10/25/76	100	8955 3257S 14954E	46.8 71.5	GGGG		
2643-02015	00000/0000 2-20035/0117	10/26/76	0	8957 4301N 11806E	29.2 149.1	GGGG		
2643-02022	00000/0000 2-20035/0162	10/26/76	0	8957 4136N 11735E	30.2 148.2	GGGG		

KEYS: CLOUD COVER X 0 TO 100 = X CLOUD COVER.
IMAGE QUALITY BLANKS=BAD NOT AVAILABLE. G=GOOD. P=POOR. F=FAIR.
MSS DATA MODE..... (BLANK)=COMPRESSED, L=LINEAR
MSS IMAGE GAIN..... (BLANK)=LOW GAIN, H=HIGH GAIN

17:18 DEC 17, '76

LANDSAT-2
OBSERVATION ID LISTING
F9R NNN=US
FROM 11/01/76 TO 11/30/76

PAGE 0021

OBSERVATION ID	MICROFILM ROLL NO./ POSITION IN ROLL RBV	DATE ACQUIRED	CLOUD % COVER	PRINCIPAL POINT OF IMAGE LAT	SUN ELEV.	SUN AZIM.	IMAGE-QUAL RBV	MSS DATA MODE	MSS IMAGE GAIN
2643-02024	00000/0000 2-20035/0163	10/26/76	0	4011N	31.2	147.4	GGGG		GGGG
2643-02031	00000/0000 2-20035/0164	10/26/76	0	3846N	32.3	146.5	GGGG		GGGG
2643-02033	00000/0000 2-20035/0165	10/26/76	0	3721N	33.3	145.6	GGGG		GGGG
2643-02040	00000/0000 2-20035/0166	10/26/76	0	3555N	34.3	144.7	GGGG		GGGG
2643-02042	00000/0000 2-20035/0167	10/26/76	0	3429N	35.3	143.8	GGGG		GGGG
2643-02045	00000/0000 2-20035/0168	10/26/76	0	3303N	36.3	142.8	GGGG		GGGG
2643-02051	00000/0000 2-20035/0169	10/26/76	20	3138N	37.3	141.8	GGGG		GGGG
2643-02054	00000/0000 2-20035/0170	10/26/76	60	3012N	38.2	140.8	GGGG		GGGG
2643-02060	00000/0000 2-20035/0171	10/26/76	80	2846N	39.1	139.8	GGGG		GGGG
2643-02063	00000/0000 2-20035/0172	10/26/76	90	2721N	40.1	138.7	GGGG		GGGG
2643-02065	00000/0000 2-20035/0173	10/26/76	90	2555N	41.0	137.6	GGGG		GGGG
2643-02072	00000/0000 2-20035/0174	10/26/76	100	2428N	41.8	136.5	GGGG		GGGG
2643-02074	00000/0000 2-20035/0175	10/26/76	100	2302N	42.7	135.3	GGGG		GGGG
2643-02081	00000/0000 2-20035/0176	10/26/76	80	2136N	43.5	134.1	GGGG		GGGG
2643-03451	00000/0000 2-20035/0177	10/26/76	50	4301N	29.1	149.1	GGGG		GGGG
2643-03501	00000/0000 2-20035/0178	10/26/76	20	2552N	40.9	137.6	GGGG		GGGG
2643-03510	00000/0000 2-20035/0179	10/26/76	10	2301N	42.7	135.3	GGGG		GGGG
2643-03512	00000/0000 2-20035/0180	10/26/76	10	2135N	43.5	134.1	GGGG		GGGG
2643-03515	00000/0000 2-20035/0181	10/26/76	10	2008N	44.3	132.8	GGGG		GGGG
2643-05291	00000/0000 2-20035/0118	10/26/76	20	4013N	31.2	147.4	GGGG		GGGG
2643-05294	00000/0000 2-20035/0119	10/26/76	0	3848N	32.2	146.6	GGGG		GGGG
2643-05314	00000/0000 2-20035/0120	10/26/76	0	3140N	37.2	141.9	GGGG		GGGG
2643-05323	00000/0000 2-20035/0121	10/26/76	0	2848N	39.1	139.9	GGGG		GGGG
2643-05330	00000/0000 2-20035/0122	10/26/76	30	2723N	40.0	138.8	GGGG		GGGG
2643-05332	00000/0000 2-20035/0123	10/26/76	10	2557N	40.9	137.7	GGGG		GGGG
2643-07073	00000/0000 2-20035/0069	10/26/76	100	5707N	18.1	157.7	GGGG		GGGG
2643-07075	00000/0000 2-20035/0124	10/26/76	100	5544N	19.2	156.8	GGGG		GGGG
2643-07082	00000/0000 2-20035/0125	10/26/76	90	5420N	20.3	155.9	GGGG		GGGG
2643-07084	00000/0000 2-20035/0126	10/26/76	100	5256N	21.4	155.0	GGGG		GGGG
2643-07091	00000/0000 2-20035/0127	10/26/76	90	5132N	22.6	154.2	GGGG		GGGG
2643-07093	00000/0000 2-20035/0128	10/26/76	90	5008N	23.7	153.3	GGGG		GGGG
2643-07100	00000/0000 2-20035/0129	10/26/76	70	4844N	24.8	152.5	GGGG		GGGG
2643-07102	00000/0000 2-20035/0130	10/26/76	20	4719N	25.8	151.6	GGGG		GGGG
2643-07105	00000/0000 2-20035/0131	10/26/76	60	4554N	26.9	150.8	GGGG		GGGG
2643-07111	00000/0000 2-20035/0132	10/26/76	80	4429N	28.0	150.0	GGGG		GGGG
2643-07214	00000/0000 2-20035/0133	10/26/76	40	0842N	49.8	121.3	GGGG		GGGG

KEYS:

CLOUD COVER % 0 TO 100 = % CLOUD COVER.
 IMAGE QUALITY BLANKS=BLANK NOT AVAILABLE. G=GOOD. P=POOR. F=FAIR.
 MSS DATA MODE..... (BLANK)=UNCOMPRESSED, L=LINEAR
 MSS IMAGE GAIN..... (BLANK)=LOW GAIN, H=HIGH GAIN

17:18 DEC 17, '76

LANDSAT-2
OBSERVATION ID LISTING
F9R N9N-US
F9M 11/01/76 TO 11/30/76

PAGE 0022

OBSERVATION ID	MICROFILM ROLL NO./ POSITION IN ROLL RBV	DATE ACQUIRED	CLOUD COVER NUMBER	PRINCIPAL POINT OF IMAGE LAT	SUN ELEV. AZIM.	IMAGE-QUAL MSS DATA IMAGE RBV MSS DATA IMAGE 123 45678 MODE GAIN
2643-07220	00000/0000 2-20035/0134	10/26/76	30	0716N	50.3 119.7	GGGG
2643-07223	00000/0000 2-20035/0135	10/26/76	30	0550N	50.8 118.0	GGGG
2643-07293	00000/0000 2-20035/0136	10/26/76	10	1836S	52.2 86.5	GGGG
2643-07300	00000/0000 2-20035/0137	10/26/76	10	2002S	51.8 84.8	GGFG
2643-08513	00000/0000 2-20035/0070	10/26/76	10	5419N	20.3 155.9	FGGG
2643-12392	00000/0000 2-20035/0071	10/26/76	60	1840S	52.2 86.6	GFGG
2643-12395	00000/0000 2-20035/0072	10/26/76	60	2006S	51.8 84.8	GPPP
2643-12401	00000/0000 2-20035/0073	10/26/76	60	2132S	51.4 83.2	FFFF
2643-12404	00000/0000 2-20035/0074	10/26/76	90	2258S	51.0 81.5	FFFF
2643-12410	00000/0000 2-20035/0075	10/26/76	80	2424S	50.5 80.0	GGGG
2643-12413	00000/0000 2-20035/0076	10/26/76	30	2551S	50.0 78.4	F
2643-12422	00000/0000 2-20035/0077	10/26/76	30	2841S	48.9 75.6	GGGG
2643-12424	00000/0000 2-20035/0078	10/26/76	80	3006S	48.2 74.2	GGGG
2643-12445	00000/0000 2-20035/0079	10/26/76	70	3714S	44.7 68.5	GGGG
2643-12451	00000/0000 2-20035/0080	10/26/76	30	3838S	43.9 67.5	GGGG
2643-23004	00000/0000 2-20035/0002	10/26/76	90	2423S	50.6 80.2	GGGG
2643-23010	00000/0000 2-20035/0003	10/26/76	90	2549S	50.1 78.7	GGGG
2643-23013	00000/0000 2-20035/0004	10/26/76	40	2715S	49.5 77.2	GGGG
2643-23015	00000/0000 2-20035/0005	10/26/76	40	2841S	48.9 75.8	GGGG
2643-23022	00000/0000 2-20035/0006	10/26/76	30	3006S	48.3 74.4	FGFF
2643-23024	00000/0000 2-20035/0007	10/26/76	30	3132S	47.7 73.1	FGGG
2643-23031	00000/0000 2-20035/0008	10/26/76	70	3258S	47.0 71.9	GGGG
2643-23033	00000/0000 2-20035/0009	10/26/76	40	3423S	46.3 70.8	GGGG
2643-23040	00000/0000 2-20035/0010	10/26/76	30	3547S	45.5 69.7	GGGG
2644-00462	00000/0000 2-20035/0011	10/27/76	30	3257S	47.0 71.9	GGGG
2644-02073	00000/0000 2-20035/0012	10/27/76	100	4301N	28.8 149.3	GGGF
2644-02080	00000/0000 2-20035/0013	10/27/76	100	4136N	29.9 148.4	GGGG
2644-02091	00000/0000 2-20035/0014	10/27/76	80	3722N	33.0 145.8	GGGG
2644-02094	00000/0000 2-20035/0015	10/27/76	90	3556N	34.0 144.9	GGGG
2644-02100	00000/0000 2-20035/0016	10/27/76	60	3430N	35.0 144.0	GGGG
2644-02103	00000/0000 2-20035/0017	10/27/76	40	3304N	36.0 143.1	GGGG
2644-02105	00000/0000 2-20035/0018	10/27/76	60	3139N	37.0 142.1	GGGG
2644-02112	00000/0000 2-20035/0019	10/27/76	100	3013N	37.9 141.1	GGGG
2644-02114	00000/0000 2-20035/0020	10/27/76	100	2846N	38.9 140.1	GGGG
2644-02121	00000/0000 2-20035/0021	10/27/76	90	2720N	39.8 139.0	GGGG
2644-02123	00000/0000 2-20035/0022	10/27/76	90	2554N	40.7 137.9	GGGG

KEYS: CLOUD COVER X 0 TO 100 = % CLOUD COVER.
 IMAGE QUALITY BLANKS=BAND NOT AVAILABLE. G=GOOD. P=POOR. F=FAIR.
 MSS DATA MODE..... (BLANK)=UNEXPRESSED, L=LINEAR
 MSS IMAGE GAIN..... (BLANK)=LOW GAIN, H=HIGH GAIN

17:18 DEC 17, '76

LANDSAT-2
OBSERVATION ID LISTING
FOR NNN-US
FROM 11/01/76 TO 11/30/76

PAGE 0023

OBSERVATION ID	MICROFILM ROLL NO./ POSITION IN ROLL	DATE ACQUIRED	CLOUD COVER	NUMBER	PRINCIPAL PRINT OF IMAGE	SUN ELEV.	SUN AZIM.	IMAGE-DUAL MSS	MSS DATA IMAGE	MSS
2644-02130	00000/0000 2-20035/0023	10/27/76	90	8971	2428N	11058E	41.6	136.8	GGGG	
2644-02132	00000/0000 2-20035/0024	10/27/76	90	8971	2302N	11035E	42.5	135.6	GGGG	
2644-02135	00000/0000 2-20035/0025	10/27/76	60	8971	2136N	11013E	43.3	134.4	GGGG	
2644-02141	00000/0000 2-20035/0026	10/27/76	70	8971	2010N	10951E	44.1	133.2	GGGG	
2644-03570	00000/0000 2-20035/0182	10/27/76	0	8972	2125N	08425E	43.3	134.4	GGGG	
2644-03573	00000/0000 2-20035/0183	10/27/76	10	8972	2002N	08403E	44.1	133.2	GGGG	
2644-03550	00000/0000 2-20035/0208	10/27/76	70	8973	4010N	06401E	30.9	147.6	GGGG	
2644-03552	00000/0000 2-20035/0209	10/27/76	50	8973	3845N	06332E	31.9	146.7	GGGG	
2644-03555	00000/0000 2-20035/0210	10/27/76	50	8973	3719N	06303E	33.0	145.8	GGGG	
2644-03561	00000/0000 2-20035/0081	10/27/76	60	8973	3553N	06236E	34.0	144.9	GGGG	
2644-03564	00000/0000 2-20035/0082	10/27/76	50	8973	3428N	06209E	35.0	144.0	GGGG	
2644-03570	00000/0000 2-20035/0083	10/27/76	60	8973	3302N	06143E	36.0	143.1	GGGG	
2644-03573	00000/0000 2-20035/0084	10/27/76	40	8973	3136N	06118E	36.9	142.1	GGGG	
2644-03575	00000/0000 2-20035/0085	10/27/76	20	8973	3010N	06053E	37.9	141.1	GGGG	
2644-03582	00000/0000 2-20035/0086	10/27/76	0	8973	2845N	06029E	38.8	140.1	GGGG	
2644-03584	00000/0000 2-20035/0087	10/27/76	0	8973	2719N	06005E	39.8	139.0	GGGG	
2644-03591	00000/0000 2-20035/0056	10/27/76	10	8973	2553N	05942E	40.7	137.9	GGGG	
2644-07134	00000/0000 2-20035/0057	10/27/76	100	8974	5544N	04505E	18.9	156.9	GGGG	
2644-07140	00000/0000 2-20035/0058	10/27/76	90	8974	5421N	04417E	20.0	156.0	GGGG	
2644-07143	00000/0000 2-20035/0059	10/27/76	90	8974	5256N	04333E	21.1	155.1	GGGG	
2644-07145	00000/0000 2-20035/0060	10/27/76	100	8974	5132N	04250E	22.2	154.3	GGGG	
2644-07152	00000/0000 2-20035/0061	10/27/76	100	8974	5007N	04211E	23.3	153.4	GGGG	
2644-07154	00000/0000 2-20035/0062	10/27/76	50	8974	4843N	04132E	24.4	152.6	GGGG	
2644-07161	00000/0000 2-20035/0063	10/27/76	10	8974	4717N	04055E	25.5	151.8	GGGG	
2644-07163	00000/0000 2-20035/0064	10/27/76	20	8974	4552N	04020E	26.6	151.0	GGGG	
2644-07170	00000/0000 2-20035/0065	10/27/76	50	8974	4428N	03947E	27.7	150.1	GGGG	
2644-07352	00000/0000 2-20035/0066	10/27/76	10	8974	1837S	02314E	52.2	87.0	GGGG	
2644-07354	00000/0000 2-20035/0067	10/27/76	0	8974	2003S	02252E	51.9	85.3	FFFF	
2644-12480	00000/0000 2-20035/0088	10/27/76	50	8977	2841S	05650W	49.0	76.0	GGGG	
2644-12482	00000/0000 2-20035/0089	10/27/76	50	8977	3007S	05714W	48.4	74.7	GGGG	
2644-12491	00000/0000 2-20035/0027	10/27/76	90	8977	3258S	05803W	47.1	72.1	GGGG	
2644-12494	00000/0000 2-20035/0028	10/27/76	80	8977	3423S	05829W	46.4	71.0	FFFF	
2644-12500	00000/0000 2-20035/0029	10/27/76	60	8977	3549S	05855W	45.7	69.9	GGGG	
2644-12505	00000/0000 2-20035/0030	10/27/76	90	8977	3838S	05951W	44.1	67.9	GGGG	
2644-14061	00000/0000 2-20035/0263	10/27/76	90	8978	5706N	05721W	17.7	157.8	GGGG	
2644-14064	00000/0000 2-20035/0264	10/27/76	90	8978	5542N	05811W	18.8	156.9	GGGG	

KEYS:

CLOUD COVER X 0 TO 100 = X CLOUD COVER.

IMAGE QUALITY BLANKS=BLANK NOT AVAILABLE. G=GOOD. P=POOR. F=FAIR.

MSS DATA MODE..... (BLANK)=UNCOMPRESSED, L=LINEAR

MSS IMAGE GAIN..... (BLANK)=LOW GAIN, H=HIGH GAIN

LANDSAT-2
OBSERVATION ID LISTING
FOR NNN-US
FROM 11/01/76 TO 11/30/76

17:18 DEC 17, 1976

PAGE 0024

OBSERVATION ID	MICROFILM POSITION IN ROLL RBV	ROLL NO./ IN ROLL MSS	DATE ACQUIRED	CLOUD COVER NUMBER	98BIT NUMBER	PRINCIPAL POINT OF IMAGE		SUN ELEV.	SUN AZIM.	IMAGE-QUAL RBV MSS DATA IMAGE	MSS MODE GAIN
						LAT	LONG				
2644-14070	00000/0000	2-20035/0265	10/27/76	100	8978	5418N	05858W	19.9	156.0	GGFG	
2644-14073	00000/0000	2-20035/0266	10/27/76	100	8978	5254N	05943W	21.1	155.1	FGFG	
2644-14075	00000/0000	2-20035/0267	10/27/76	90	8978	5130N	06025W	22.2	154.3	GGGG	
2644-14082	00000/0000	2-20035/0268	10/27/76	30	8978	5006N	06105W	23.3	153.4	GGGG	
2644-14084	00000/0000	2-20035/0269	10/27/76	50	8978	4842N	06143W	24.4	152.6	GGGG	
2644-14091	00000/0000	2-20035/0270	10/27/76	80	8978	4717N	06220W	25.5	151.8	GGGG	
2644-14093	00000/0000	2-20035/0271	10/27/76	80	8978	4552N	06255W	26.5	151.0	GGGG	
2644-14100	00000/0000	2-20035/0272	10/27/76	70	8978	4427N	06328W	27.6	150.2	GGGG	
2644-14102	00000/0000	2-20035/0273	10/27/76	80	8978	4302N	06401W	28.7	149.3	GGGG	
2644-14105	00000/0000	2-20035/0274	10/27/76	60	8978	4137N	06432W	29.7	148.5	GGGG	
2644-15514	00000/0000	2-20035/0275	10/27/76	20	8979	5006N	08655W	23.2	153.5	GGGG	
2644-17343	00000/0000	2-20035/0283	10/27/76	80	8980	5129N	11205W	22.1	154.3	GGGG	
2644-23064	00000/0000	2-20035/0031	10/27/76	40	8983	2549S	14903E	50.2	79.1	GGGG	
2644-23071	00000/0000	2-20035/0032	10/27/76	10	8983	2714S	14840E	49.7	77.6	GGGG	
2644-23073	00000/0000	2-20035/0033	10/27/76	0	8983	2841S	14816E	49.1	76.2	GGGG	
2644-23082	00000/0000	2-20035/0034	10/27/76	10	8983	3132S	14727E	47.9	73.6	GGGG	
2644-23085	00000/0000	2-20035/0035	10/27/76	10	8983	3257S	14702E	47.2	72.3	GGGG	
2644-23091	00000/0000	2-20035/0036	10/27/76	10	8983	3422S	14636E	46.5	71.2	GGGG	
2644-23094	00000/0000	2-20035/0037	10/27/76	10	8983	3547S	14609E	45.8	70.0	GGGG	
2644-23100	00000/0000	2-20035/0038	10/27/76	40	8983	3712S	14542E	45.0	69.0	GGGG	
2645-00514	00000/0000	2-20035/0039	10/28/76	40	8984	3133S	12137E	47.9	73.6	GGGG	
2645-00520	00000/0000	2-20035/0040	10/28/76	40	8984	3258S	12113E	47.2	72.3	GGGG	
2645-02134	00000/0000	2-20035/0041	10/28/76	10	8985	4136N	11444E	29.6	148.6	GGGG	
2645-02141	00000/0000	2-20035/0042	10/28/76	10	8985	4011N	11414E	30.6	147.7	GGGG	
2645-02143	00000/0000	2-20035/0043	10/28/76	0	8985	3846N	11345E	31.7	146.9	GGGG	
2645-02150	00000/0000	2-20035/0044	10/28/76	0	8985	3720N	11317E	32.7	146.0	GGGG	
2645-02152	00000/0000	2-20035/0045	10/28/76	0	8985	3555N	11250E	33.7	145.1	GGGG	
2645-02155	00000/0000	2-20035/0046	10/28/76	0	8985	3430N	11224E	34.7	144.2	GGGG	
2645-02161	00000/0000	2-20035/0047	10/28/76	0	8985	3304N	11158E	35.7	143.3	GGGG	
2645-02164	00000/0000	2-20035/0048	10/28/76	0	8985	3137N	11132E	36.7	142.3	GGGG	
2645-02170	00000/0000	2-20035/0049	10/28/76	40	8985	3011N	11107E	37.7	141.3	GGGG	
2645-02173	00000/0000	2-20035/0050	10/28/76	90	8985	2845N	11042E	38.6	140.3	GGGG	
2645-02175	00000/0000	2-20035/0051	10/28/76	90	8985	2719N	11019E	39.5	139.3	GGGG	
2645-02182	00000/0000	2-20035/0052	10/28/76	90	8985	2553N	10956E	40.4	138.2	GGGG	
2645-02184	00000/0000	2-20035/0053	10/28/76	80	8985	2427N	10933E	41.3	137.1	GGGG	
2645-02191	00000/0000	2-20035/0054	10/28/76	90	8985	2302N	10911E	42.2	135.9	GGGG	

KEYS: CLOUD COVER % 0 TO 100 = % CLOUD COVER.
 IMAGE QUALITY BLANKS=BLANK NOT AVAILABLE. G=GOOD. P=POOR. F=FAIR.
 MSS DATA MODE..... (BLANK)=COMPRESSED, L=LINEAR
 MSS IMAGE GAIN..... (BLANK)=LOW GAIN, H=HIGH GAIN

17:18 DEC 17, '76

LANDSAT-2
OBSERVATION ID LISTING
FOR NAN-US
FROM 11/01/76 TO 11/30/76

PAGE 0025

OBSERVATION ID	MICROFILM ROLL NO./ POSITION IN ROLL RBV	DATE ACQUIRED	CLOUD COVER	ORBIT NUMBER	PRINCIPAL POINT OF IMAGE LAT	SUN ELEV.	SUN AZIM.	IMAGE-QUAL	MSS RBV	MSS DATA	MSS MODE	GAIN
2645-02193	00000/0000 2-20035/0055	10/28/76	80	8985	2137N	43.1	134.7	GGGG				
2645-03561	00000/0000 2-20035/0090	10/28/76	10	8986	4425N	27.4	150.2	GGGG				
2645-03563	00000/0000 2-20035/0091	10/28/76	0	8986	4300N	28.5	149.4	GGGG				
2645-0401	00000/0000 2-20035/0092	10/28/76	0	8986	2720N	39.5	139.3	GGGG				
2645-04013	00000/0000 2-20035/0093	10/28/76	0	8986	2554N	40.4	138.2	GGGG				
2645-04020	00000/0000 2-20035/0094	10/28/76	0	8986	2429N	41.3	137.1	GGGG				
2645-04022	00000/0000 2-20035/0095	10/28/76	0	8986	2302N	42.2	136.0	GGGG				
2645-04025	00000/0000 2-20035/0096	10/28/76	0	8986	2135N	43.0	134.8	GGGG				
2645-04031	00000/0000 2-20035/0097	10/28/76	0	8986	2009N	43.9	133.5	GGGG				
2645-04034	00000/0000 2-20035/0098	10/28/76	0	8986	1843N	44.7	132.3	GGGG				
2645-05424	00000/0000 2-20035/0211	10/28/76	30	8987	3302N	35.7	143.3	GGGG				
2645-05431	00000/0000 2-20035/0212	10/28/76	10	8987	3136N	36.7	142.4	GGGG				
2645-05433	00000/0000 2-20035/0213	10/28/76	10	8987	3011N	37.6	141.4	GGGG				
2645-05440	00000/0000 2-20035/0214	10/28/76	0	8987	2845N	38.6	140.4	GGGG				
2645-05442	00000/0000 2-20035/0215	10/28/76	0	8987	2719N	39.5	139.3	GGGG				
2645-05445	00000/0000 2-20035/0216	10/28/76	10	8987	2553N	40.4	138.2	GGGG				
2645-07185	00000/0000 2-20035/0248	10/28/76	80	8988	5707N	17.4	157.9	GGGG				
2645-07192	00000/0000 2-20035/0099	10/28/76	70	8988	5544N	18.6	157.0	GGGG				
2645-07194	00000/0000 2-20035/0100	10/28/76	80	8988	5420N	19.7	156.1	GGGG				
2645-07201	00000/0000 2-20035/0101	10/28/76	40	8988	5255N	20.8	155.2	GGGG				
2645-07203	00000/0000 2-20035/0102	10/28/76	20	8988	5131N	21.9	154.4	GGGG				
2645-07210	00000/0000 2-20035/0103	10/28/76	50	8988	5007N	23.0	153.6	GGGG				
2645-07212	00000/0000 2-20035/0104	10/28/76	100	8988	4843N	24.1	152.7	GGGG				
2645-07215	00000/0000 2-20035/0105	10/28/76	100	8988	4718N	25.2	151.9	GGGG				
2645-07221	00000/0000 2-20035/0106	10/28/76	90	8988	4553N	26.3	151.1	GGGG				
2645-07224	00000/0000 2-20035/0107	10/28/76	60	8988	4428N	27.4	150.3	GGGG				
2645-07412	00000/0000 2-20035/0108	10/28/76	30	8988	4203S	52.0	85.8	GGGG				
2645-12543	00000/0000 2-20035/0236	10/28/76	10	8991	3131S	48.0	73.8	FFGG				
2645-12552	00000/0000 2-20035/0237	10/28/76	60	8991	3422S	46.6	71.4	GGGG				
2645-12555	00000/0000 2-20035/0238	10/28/76	40	8991	3547S	45.9	70.2	GGGG				
2645-12561	00000/0000 2-20035/0239	10/28/76	10	8991	3713S	45.1	69.2	FFGG				
2645-12564	00000/0000 2-20035/0240	10/28/76	10	8991	3839S	44.3	68.2	FFGG				
2645-12570	00000/0000 2-20035/0241	10/28/76	0	8991	4004S	43.5	67.3	GGGG				
2645-14140	00000/0000 2-20035/0284	10/28/76	10	8992	5006N	23.0	153.6	GGGG				
2645-14143	00000/0000 2-20035/0285	10/28/76	40	8992	4841N	24.1	152.7	GGGG				
2645-14152	00000/0000 2-20035/0286	10/28/76	20	8992	4552N	26.2	151.1	GGG				

KEYS:
CLOUD COVER X 0 TO 100 = % CLOUD COVER.
IMAGE QUALITY BLANKS=BAND NOT AVAILABLE. G=GOOD. P=POOR. F=FAIR.
MSS DATA MODE..... (BLANK)=UNCOMPRESSED, L=LINEAR
MSS IMAGE GAIN..... (BLANK)=LOW GAIN, H=HIGH GAIN

17:18 DEC 17, 1976

LANDSAT-2
OBSERVATION IC LISTING
FOR NON-US
FROM 11/01/76 TO 11/30/76

PAGE 0026

OBSERVATION ID	MICROFILM ROLL NO./ POSITION IN ROLL RBV	DATE ACQUIRED	CLOUD COVER	ORBIT NUMBER	PRINCIPAL POINT OF IMAGE LAT	LONG	SUN ELEV.	SUN AZIM.	IMAGE-QUAL RBV	MSS DATA	MSS MODE	GAIN
2645-14154	0000/0000 2-20035/0287	10/28/76	50	8992	4427N	06455W	27.3	150.3				GGGG
2645-14161	0000/0000 2-20035/0288	10/28/76	60	8992	4301N	06528W	28.4	149.5				GGGG
2645-14163	0000/0000 2-20035/0289	10/28/76	70	8992	4136N	06600W	29.4	148.7				GGGG
2645-15572	0000/0000 2-20035/0290	10/28/76	40	8993	5005N	08233W	22.9	153.6				GGGG
2645-23114	0000/0000 2-20035/0242	10/28/76	0	8997	2257S	14823E	51.3	82.8				GGGG
2645-23120	0000/0000 2-20035/0243	10/28/76	0	8997	2422S	14800E	50.9	81.1				GGGG
2645-23143	0000/0000 2-20035/0244	10/28/76	10	8997	3258S	14537E	47.4	72.7				GGGG
2645-23150	0000/0000 2-20035/0245	10/28/76	10	8997	3423S	14512E	46.7	71.5				GGGG
2645-23152	0000/0000 2-20035/0246	10/28/76	0	8997	3547S	14445E	46.0	70.4				GGGG
2645-23155	0000/0000 2-20035/0247	10/28/76	20	8997	3712S	14417E	45.2	69.4				GGGG
2646-00572	0000/0000 2-20035/0249	10/29/76	70	8998	3132S	12011E	48.1	74.0				GGGG
2646-00575	0000/0000 2-20035/0250	10/29/76	70	8998	3257S	11946E	47.4	72.7				GGGG
2646-00581	0000/0000 2-20035/0251	10/29/76	50	8998	3423S	11921E	46.7	71.6				GGGG
2646-02192	0000/0000 2-20035/0252	10/29/76	10	8999	4136N	11317E	29.3	148.8				GGGG
2646-02195	0000/0000 2-20035/0253	10/29/76	10	8999	4011N	11247E	30.3	147.9				GGGG
2646-02201	0000/0000 2-20035/0254	10/29/76	0	8999	3846N	11218E	31.4	147.1				GGGG
2646-02210	0000/0000 2-20035/0255	10/29/76	0	8999	3555N	11123E	33.4	145.3				GGGG
2646-02213	0000/0000 2-20035/0256	10/29/76	0	8999	3429N	11056E	34.4	144.4				GGGG
2646-02215	0000/0000 2-20035/0257	10/29/76	10	8999	3303N	11029E	35.4	143.5				GGGG
2646-02233	0000/0000 2-20035/0258	10/29/76	30	8999	2720N	10852E	39.3	139.5				GGGG
2646-02240	0000/0000 2-20035/0259	10/29/76	80	8999	2554N	10829E	40.2	138.5				GGGG
2646-02242	0000/0000 2-20035/0260	10/29/76	100	8999	2428N	10806E	41.1	137.4				GGGG
2646-02245	0000/0000 2-20035/0261	10/29/76	100	8999	2302N	10743E	42.0	136.2				GGGG
2646-04015	0000/0000 2-20035/0217	10/29/76	20	9000	4426N	08832E	27.1	150.4				GGGG
2646-04021	0000/0000 2-20035/0218	10/29/76	10	9000	4301N	08800E	28.2	149.6				GGGG
2646-04024	0000/0000 2-20035/0219	10/29/76	0	9000	4137N	08728E	29.3	148.8				GGGG
2646-04065	0000/0000 2-20035/0207	10/29/76	0	9000	2720N	08303E	39.2	139.6				GGGG
2646-04071	0000/0000 2-20035/0220	10/29/76	0	9000	2554N	08240E	40.2	138.5				GGGG
2646-04074	0000/0000 2-20035/0221	10/29/76	0	9000	2428N	08217E	41.1	137.4				GGGG
2646-04083	0000/0000 2-20035/0222	10/29/76	0	9000	2137N	08133E	42.8	135.1				GGGG
2646-04085	0000/0000 2-20035/0223	10/29/76	0	9000	2011N	08111E	43.6	133.9				GGGG
2646-04092	0000/0000 2-20035/0224	10/29/76	0	9000	1844N	08050E	44.4	132.6				GGGG
2646-05471	0000/0000 2-20035/0195	10/29/76	90	9001	3720N	06012E	32.4	146.2				GGGG
2646-05473	0000/0000 2-20035/0196	10/29/76	70	9001	3554N	05945E	33.4	145.4				GGGG
2646-05480	0000/0000 2-20035/0197	10/29/76	70	9001	3429N	05918E	34.4	144.5				GGGG
2646-05482	0000/0000 2-20035/0198	10/29/76	80	9001	3303N	05852E	35.4	143.5				GGGG

KEYS:

CLOUD COVER X 0 TO 100 = % CLOUD COVER.
 IMAGE QUALITY BLANKS=BAD NOT AVAILABLE. G=GOOD. P=POOR. F=FAIR.
 MSS DATA MODE..... (BLANK)=COMPRESSED, L=LINEAR
 MSS IMAGE GAIN..... (BLANK)=LOW GAIN, H=HIGH GAIN

17:18 DEC 17, '76

PAGE 0027

LANDSAT-2
OBSERVATION ID LISTING
F9R NON-US
FROM 11/01/76 TO 11/30/76

OBSERVATION ID	MICROFILM ROLL NO./ POSITION IN ROLL RBV	DATE ACQUIRED	CLOUD COVER	PRINCIPAL POINT OF IMAGE LAT LONG	SUN ELEV. AZIM.	IMAGE-QUAL RBV MSS DATA IMAGE 123 45678 MODE GAIN
2646-05485	00000/0000 2-20035/0199	10/29/76	80	3137N 05826E	36.4 142.6	GGGG
2646-05491	00000/0000 2-20035/0200	10/29/76	70	3011N 05801E	37.3 141.6	GGGG
2646-05494	00000/0000 2-20035/0201	10/29/76	20	2845N 05737E	38.3 140.6	GGGG
2646-05500	00000/0000 2-20035/0202	10/29/76	40	2720N 05713E	39.2 139.6	GGGG
2646-05503	00000/0000 2-20035/0225	10/29/76	10	2554N 05650E	40.2 138.5	GGGG
2646-07244	00000/0000 2-20035/0226	10/29/76	80	5704N 04301E	17.1 157.9	GGGG
2646-07250	00000/0000 2-20035/0227	10/29/76	90	5541N 04211E	18.3 157.0	GGGG
2646-07253	00000/0000 2-20035/0228	10/29/76	70	5417N 04125E	19.4 156.1	GGGG
2646-07255	00000/0000 2-20035/0229	10/29/76	30	5254N 04041E	20.5 155.3	GGGG
2646-07262	00000/0000 2-20035/0230	10/29/76	10	5129N 03958E	21.6 154.5	GGGG
2646-07264	00000/0000 2-20035/0231	10/29/76	10	5004N 03918E	22.7 153.6	GGGG
2646-07271	00000/0000 2-20035/0232	10/29/76	10	4840N 03840E	23.8 152.8	GGGG
2646-07273	00000/0000 2-20035/0233	10/29/76	10	4716N 03803E	24.9 152.0	GGGG
2646-07280	00000/0000 2-20035/0234	10/29/76	20	4551N 03728E	26.0 151.2	GGGG
2646-07282	00000/0000 2-20035/0235	10/29/76	10	4426N 03655E	27.1 150.4	GGGG
2646-12592	00000/0000 2-20035/0184	10/29/76	60	2840S 05942W	49.4 76.9	FFFF
2646-12595	00000/0000 2-20035/0185	10/29/76	40	3006S 06007W	48.8 75.5	GGGG
2646-13001	00000/0000 2-20035/0186	10/29/76	40	3131S 06031W	48.2 74.2	FFFF
2646-13004	00000/0000 2-20035/0187	10/29/76	50	3257S 06057W	47.5 72.9	GGGG
2646-13010	00000/0000 2-20035/0188	10/29/76	40	3423S 06123W	46.8 71.7	GGGG
2646-13022	00000/0000 2-20035/0189	10/29/76	90	3838S 06245W	44.6 68.6	GGGG
2646-13024	00000/0000 2-20035/0190	10/29/76	80	4004S 06314W	43.8 67.6	FFFF
2646-14192	00000/0000 2-20035/0276	10/29/76	90	5130N 06319W	21.5 154.5	GGGG
2646-14194	00000/0000 2-20035/0277	10/29/76	100	5005N 06359W	22.6 153.7	GGGG
2646-14201	00000/0000 2-20035/0278	10/29/76	90	4841N 06436W	23.7 152.9	GGGG
2646-14221	00000/0000 2-20035/0279	10/29/76	30	4137N 06724W	29.1 148.8	GGGG
2646-14224	00000/0000 2-20035/0280	10/29/76	50	4011N 06755W	30.2 148.0	GGGG
2646-14230	00000/0000 2-20035/0281	10/29/76	60	3846N 06824W	31.2 147.2	GGGG
2646-16030	00000/0000 2-20035/0282	10/29/76	90	5006N 08948W	22.6 153.7	FGGG
2646-16103	00000/0000 2-20035/0262	10/29/76	100	2429N 09823W	40.9 137.5	GGGG
2646-23172	00000/0000 2-20035/0191	10/29/76	60	2257S 14653E	51.4 83.3	GGGG
2646-23204	00000/0000 2-20035/0192	10/29/76	10	3422S 14344E	46.9 71.9	GGGG
2646-23210	00000/0000 2-20035/0193	10/29/76	0	3548S 14317E	46.2 70.8	GGGG
2646-23213	00000/0000 2-20035/0194	10/29/76	10	3713S 14250E	45.4 69.7	GGGG
2647-01024	00000/0000 2-20035/0203	10/30/76	30	3007S 11909E	48.9 75.7	GGGG
2647-01030	00000/0000 2-20035/0204	10/30/76	10	3132S 11844E	48.3 74.4	GGGG

KEYS: CLOUD COVER X 0 TO 100 = X CLOUD COVER.
 IMAGE QUALITY BLANKS=BAD NOT AVAILABLE. G=GOOD. P=POOR. F=FAIR.
 MSS DATA MODE (BLANK)=COMPRESSED, L=LINEAR
 MSS IMAGE GAIN (BLANK)=LOW GAIN, H=HIGH GAIN

17:18 DEC 17, '76

LANDSAT-2
OBSERVATION ID LISTING
F9R NAN-US
FR9M 11/01/76 TO 11/30/76

PAGE 0028

OBSERVATION ID	MICROFILM POSITION RBV	ROLL N9./ IN R9LL MSS	DATE ACQUIRED	CLOUD COVER	NUMBER	PRINCIPAL POINT OF IMAGE	SUN ELEV. AZIM.	IMAGE-QUAL MSS DATA MODE	MSS IMAGE GAIN
2647-01033	0000/0000	2-20035/0205	10/30/76	20	9012	3257S	47.6 73.1	GGGG	
2647-01035	0000/0000	2-20035/0206	10/30/76	50	9012	3423S	46.9 71.9	GGGG	
2647-02253	0000/0000	2-20035/0417	10/30/76	0	9013	4012N	30.0 148.1	GGGG	
2647-02255	0000/0000	2-20035/0418	10/30/76	0	9013	3847N	31.1 147.3	GGGG	
2647-02262	0000/0000	2-20035/0419	10/30/76	0	9013	3721N	32.1 146.4	GGGG	
2647-02264	0000/0000	2-20035/0291	10/30/76	0	9013	3555N	33.1 145.5	GGFG	
2647-02271	0000/0000	2-20035/0292	10/30/76	10	9013	3429N	34.2 144.6	GGFG	
2647-02273	0000/0000	2-20035/0293	10/30/76	20	9013	3303N	35.1 143.7	GGFG	
2647-02280	0000/0000	2-20035/0294	10/30/76	10	9013	3138N	36.1 142.8	GGGG	
2647-02282	0000/0000	2-20035/0295	10/30/76	60	9013	3012N	37.1 141.8	GGGG	
2647-02285	0000/0000	2-20035/0296	10/30/76	70	9013	2846N	38.1 140.8	GGGG	
2647-02291	0000/0000	2-20035/0297	10/30/76	90	9013	2720N	39.0 139.8	GGGG	
2647-02294	0000/0000	2-20035/0298	10/30/76	80	9013	2554N	39.9 138.8	GGGG	
2647-04073	0000/0000	2-20035/0299	10/30/76	10	9014	4426N	26.6 150.5	GGGG	
2647-04080	0000/0000	2-20035/0300	10/30/76	0	9014	4302N	27.9 149.7	GGGG	
2647-04082	0000/0000	2-20035/0301	10/30/76	0	9014	4137N	29.0 148.9	GGGG	
2647-04123	0000/0000	2-20035/0302	10/30/76	10	9014	2720N	39.0 139.8	GGGG	
2647-04130	0000/0000	2-20035/0303	10/30/76	0	9014	2554N	39.9 138.8	GGGG	
2647-04132	0000/0000	2-20035/0304	10/30/76	0	9014	2428N	40.8 137.7	GGGG	
2647-04135	0000/0000	2-20035/0305	10/30/76	0	9014	2302N	41.7 136.6	GGGG	
2647-04141	0000/0000	2-20035/0306	10/30/76	0	9014	2136N	42.6 135.4	GGGF	
2647-04144	0000/0000	2-20035/0307	10/30/76	0	9014	2009N	43.4 134.2	GGFG	
2647-04150	0000/0000	2-20035/0308	10/30/76	10	9014	1843N	44.2 133.0	GGGG	
2647-04153	0000/0000	2-20035/0309	10/30/76	10	9014	1717N	45.0 131.7	GGGG	
2647-04155	0000/0000	2-20035/0310	10/30/76	20	9014	1550N	45.8 130.3	GGGG	
2647-04173	0000/0000	2-20035/0311	10/30/76	10	9014	1006N	48.5 124.6	GGGG	
2647-05525	0000/0000	2-20035/0403	10/30/76	100	9015	3719N	32.1 146.4	GG	
2647-05552	0000/0000	2-20035/0404	10/30/76	20	9015	2846N	38.0 140.9	GGGG	
2647-07302	0000/0000	2-20035/0338	10/30/76	70	9016	5705N	16.8 158.0	GGGG	
2647-07304	0000/0000	2-20035/0339	10/30/76	70	9016	5542N	18.0 157.1	GGGF	
2647-07311	0000/0000	2-20035/0340	10/30/76	20	9016	5418N	19.1 156.2	GGGG	
2647-07313	0000/0000	2-20035/0341	10/30/76	10	9016	5254N	20.2 155.4	GGGG	
2647-07320	0000/0000	2-20035/0342	10/30/76	10	9016	5130N	21.3 154.6	GGGG	
2647-07322	0000/0000	2-20035/0343	10/30/76	0	9016	5005N	22.4 153.7	GGGG	
2647-07325	0000/0000	2-20035/0344	10/30/76	10	9016	4841N	23.5 152.9	GGGG	
2647-07331	0000/0000	2-20035/0324	10/30/76	0	9016	4716N	24.6 152.1	GGGG	

KEYS:
CLOUD COVER % 0 TO 100 = X CLOUD COVER.
IMAGE QUALITY BLANKS=HAND NOT AVAILABLE. G=GG9D. P=P99R. F=FAIR.
MSS DATA MODE..... (BLANK)=COMPRESSED, L=LINEAR
MSS IMAGE GAIN..... (BLANK)=LOW GAIN, H=HIGH GAIN

17:18 DEC 17, '76

LANDSAT-2
OBSERVATION ID LISTING
FOR NON-US
FROM 11/01/76 TO 11/30/76

PAGE 0029

OBSERVATION ID	MICROFILM ROLL NO./ POSITION IN ROLL RBV	DATE ACQUIRED	CLOUD COVER NUMBER	PRINCIPAL POINT OF IMAGE LAT	SUN ELEV.	SUN AZIM.	IMAGE-QUAL RBV MSS DATA IMAGE 123 45678 MADE GAIN
2647-07334	00000/0000 2-20035/0325	10/30/76	0	4551N	25.7	151.3	GFGF
2647-07340	00000/0000 2-20035/0326	10/30/76	10	4426N	26.8	150.6	FFFF
2647-13050	00000/0000 2-20035/0327	10/30/76	40	2840S	49.5	77.4	FFFF
2647-13053	00000/0000 2-20035/0328	10/30/76	90	3005S	49.0	76.0	GGGG
2647-13055	00000/0000 2-20035/0329	10/30/76	90	3130S	48.3	74.6	FFFF
2647-13062	00000/0000 2-20035/0330	10/30/76	90	3256S	47.7	73.3	GGGG
2647-13064	00000/0000 2-20035/0331	10/30/76	100	3422S	47.0	72.1	GGGG
2647-13071	00000/0000 2-20035/0332	10/30/76	100	3548S	46.3	71.0	FFFF
2647-13073	00000/0000 2-20035/0333	10/30/76	100	3713S	45.6	69.9	FFFF
2647-13080	00000/0000 2-20035/0334	10/30/76	50	3837S	44.8	68.9	GGGG
2647-14253	00000/0000 2-20035/0313	10/30/76	40	5007N	22.3	153.8	GGGG
2647-14255	00000/0000 2-20035/0314	10/30/76	20	4842N	23.4	153.0	GGGG
2647-14285	00000/0000 2-20035/0315	10/30/76	10	3846N	30.9	147.3	GSGG
2647-14291	00000/0000 2-20035/0316	10/30/76	20	3721N	32.0	146.5	GGGG
2647-14294	00000/0000 2-20035/0317	10/30/76	20	3555N	33.0	145.6	GGGG
2647-14300	00000/0000 2-20035/0318	10/30/76	10	3430N	34.0	144.7	GGGG
2647-16082	00000/0000 2-20035/0319	10/30/76	10	5129N	21.2	154.6	GGGG
2647-16084	00000/0000 2-20035/0320	10/30/76	50	5006N	22.3	153.8	GGGG
2647-16161	00000/0000 2-20035/0312	10/30/76	10	2429N	40.7	137.8	GGGG
2647-16365	00000/0000 2-20035/0335	10/30/76	90	3422S	47.1	75.3	GGGG
2647-23264	00000/0000 2-20035/0336	10/30/76	90	3547S	46.4	71.2	GGGG
2647-23271	00000/0000 2-20035/0337	10/30/76	20	3712S	45.6	70.1	FFFF
2648-01082	00000/0000 2-20035/0345	10/31/76	40	3006S	49.0	76.2	GGGG
2648-01091	00000/0000 2-20035/0346	10/31/76	80	3131S	48.4	74.8	GGGG
2648-02332	00000/0000 2-20035/0347	10/31/76	60	3256S	47.8	73.5	GGGG
2648-02334	00000/0000 2-20035/0348	10/31/76	80	3304N	34.9	143.9	GGGG
2648-02341	00000/0000 2-20035/0350	10/31/76	90	3138N	35.9	143.0	GGGG
2648-02343	00000/0000 2-20035/0351	10/31/76	30	3011N	36.8	142.1	GGGG
2648-02350	00000/0000 2-20035/0352	10/31/76	50	2846N	37.8	141.1	GGGG
2648-02352	00000/0000 2-20035/0353	10/31/76	60	2720N	38.7	140.1	GGGG
2648-04122	00000/0000 2-20035/0405	10/31/76	100	2554N	39.7	139.0	GGGG
2648-04125	00000/0000 2-20035/0406	10/31/76	100	4716N	24.3	152.3	GGGG
2648-04131	00000/0000 2-20035/0407	10/31/76	90	4551N	25.4	151.5	GGGG
2648-04181	00000/0000 2-20035/0408	10/31/76	0	4426N	26.5	150.7	GGGG
2648-04184	00000/0000 2-20035/0409	10/31/76	0	2720N	38.7	140.1	GGGG
				2555N	39.6	139.0	GGGG

KEYS: CLOUD COVER X 0 TO 100 = % CLOUD COVER.
 IMAGE QUALITY BLANKS=BAND NOT AVAILABLE, G=GOOD, P=POOR, F=FAIR.
 MSS DATA MODE..... (BLANK)=COMPRESSED, L=LINEAR
 MSS IMAGE GAIN..... (BLANK)=LOW GAIN, H=HIGH GAIN

17:18 DEC 17, '76

PAGE 0030

LANDSAT-2
OBSERVATION ID LISTING
F9R NAN-US
FROM 11/01/76 TO 11/30/76

OBSERVATION ID	MICROFILM ROLL NO./ POSITION IN ROLL RBV	DATE ACQUIRED	CLOUD COVER	SUBBIT NUMBER	PRINCIPAL POINT 8F IMAGE LAT	LONG	SUN ELEV.	SUN AZIM.	IMAGE-QUAL RBV	MSS DATA MODE	MSS GAIN
2648-04190	00000/0000 2-20035/0410	10/31/76	0	9028	2429N	07925E	40.6	138.0	GGGG		
2648-04193	00000/0000 2-20035/0411	10/31/76	0	9028	2303N	07903E	41.4	136.8	GGGG		
2648-04195	00000/0000 2-20035/0412	10/31/76	0	9028	2137N	07840E	42.3	135.7	GGGG		
2648-04202	00000/0000 2-20035/0413	10/31/76	0	9028	2010N	07819E	43.2	134.5	GGGG		
2648-04204	00000/0000 2-20035/0414	10/31/76	0	9028	1844N	07757E	44.0	133.3	GGGG		
2648-04211	00000/0000 2-20035/0415	10/31/76	0	9028	1717N	07736E	44.8	132.0	GGGG		
2648-04213	00000/0000 2-20035/0416	10/31/76	10	9028	1551N	07715E	45.5	130.7	GGGG		
2648-04220	00000/0000 2-20035/0370	10/31/76	10	9028	1425N	07654E	46.3	129.3	GGGG		
2648-04222	00000/0000 2-20035/0371	10/31/76	10	9028	1258N	07633E	47.0	127.9	GGGG		
2648-04225	00000/0000 2-20035/0372	10/31/76	20	9028	1132N	07613E	47.7	126.5	GGGG		
2648-07360	00000/0000 2-20035/0360	10/31/76	100	9030	5705N	04009E	16.5	158.1	GGGG		
2648-07362	00000/0000 2-20035/0361	10/31/76	100	9030	5541N	03919E	17.6	157.2	GGGF		
2648-07365	00000/0000 2-20035/0362	10/31/76	100	9030	5417N	03831E	18.8	156.3	GGGF		
2648-07371	00000/0000 2-20035/0363	10/31/76	90	9030	5254N	03747E	19.9	155.5	GGGG		
2648-07374	00000/0000 2-20035/0364	10/31/76	90	9030	5130N	03705E	21.0	154.7	GGFF		
2648-07380	00000/0000 2-20035/0365	10/31/76	90	9030	5006N	03626E	22.1	153.9	GGGF		
2648-07385	00000/0000 2-20035/0366	10/31/76	100	9030	4717N	03511E	24.3	152.3	GGGG		
2648-07392	00000/0000 2-20035/0367	10/31/76	90	9030	4552N	03436E	25.4	151.5	GGFG		
2648-07394	00000/0000 2-20035/0368	10/31/76	90	9030	4427N	03402E	26.5	150.7	GGGF		
2648-14304	00000/0000 2-20035/0354	10/31/76	80	9034	5131N	06612W	20.9	154.7	GGGG		
2648-14311	00000/0000 2-20035/0355	10/31/76	80	9034	5006N	06652W	22.0	153.9	GGGF		
2648-14313	00000/0000 2-20035/0356	10/31/76	80	9034	4842N	06730W	23.1	153.1	GGGG		
2648-14354	00000/0000 2-20035/0357	10/31/76	60	9034	3430N	07237W	33.7	144.9	GGGG		
2648-14361	00000/0000 2-20035/0358	10/31/76	70	9034	3305N	07303W	34.7	144.0	GGGG		
2648-14363	00000/0000 2-20035/0359	10/31/76	70	9034	3139N	07329W	35.7	143.1	GGGG		
2648-16142	00000/0000 2-20035/0369	10/31/76	40	9035	5005N	09240W	22.0	153.9	GGGG		
2648-23320	00000/0000 2-20035/0373	10/31/76	60	9039	3421S	14051E	47.3	72.7	GGGG		
2648-23323	00000/0000 2-20035/0374	10/31/76	80	9039	3546S	14025E	46.6	71.5	GGGG		
2649-01134	00000/0000 2-20035/0375	11/01/76	0	9040	2840S	11642E	49.8	78.0	GGGG		
2649-01140	00000/0000 2-20035/0376	11/01/76	0	9040	3006S	11618E	49.2	76.6	GGGG		
2649-01143	00000/0000 2-20035/0377	11/01/76	20	9040	3131S	11553E	48.6	75.2	GGGG		
2649-02383	00000/0000 2-20035/0378	11/01/76	70	9041	3430N	10638E	33.6	145.0	GGGG		
2649-02390	00000/0000 2-20035/0379	11/01/76	90	9041	3304N	10613E	34.6	144.1	GGGG		
2649-02392	00000/0000 2-20035/0380	11/01/76	100	9041	3138N	10548E	35.6	143.2	GGGG		
2649-02395	00000/0000 2-20035/0381	11/01/76	80	9041	3013N	10523E	36.6	142.3	GGGG		
2649-02401	00000/0000 2-20035/0382	11/01/76	80	9041	2847N	10458E	37.5	141.3	GGGG		

KEYS: CLOUD COVER X 0 TO 100 = X CLOUD COVER.
IMAGE QUALITY BLANKS=BAD NOT AVAILABLE. G=GOOD. P=POOR. F=FAIR.
MSS DATA MODE..... (BLANK)=COMPRESSED, L=LINEAR
MSS IMAGE GAIN..... (BLANK)=LOW GAIN, H=HIGH GAIN

17:18 DEC 17, '76

LANDSAT-2
OBSERVATION ID LISTING
FOR NON-US
FROM 11/01/76 TO 11/30/76

PAGE 0031

OBSERVATION ID	MICROFILM ROLL NO./ POSITION IN ROLL RBV	DATE ACQUIRED	CLOUD COVER NUMBER	PRINCIPAL POINT OF IMAGE LAT	SUN ELEV.	SUN AZIM.	IMAGE-QUAL RBV	MSS DATA MODE	MSS IMAGE GAIN
2649-02404	30000/0000 2-20035/0383	11/01/76	60	2720N	38.5	140.3	GGGG		
2649-02410	30000/0000 2-20035/0384	11/01/76	80	2554N	39.4	139.3	GGGG		
2649-02413	30000/0000 2-20035/0385	11/01/76	90	2428N	40.3	138.2	GGGG		
2649-02415	30000/0000 2-20035/0386	11/01/76	90	2303N	41.2	137.1	GGGG		
2649-04180	30000/0000 2-20035/0387	11/01/76	40	4716N	24.0	152.4	GGGG		
2649-04183	30000/0000 2-20035/0388	11/01/76	80	4551N	25.1	151.6	GGGG		
2649-04185	30000/0000 2-20035/0389	11/01/76	80	4427N	26.2	150.8	GGGG		
2649-04192	30000/0000 2-20035/0390	11/01/76	60	4302N	27.3	150.0	GGGG		
2649-04194	30000/0000 2-20035/0391	11/01/76	70	4137N	28.4	149.2	GGGG		
2649-04233	30000/0000 2-20035/0392	11/01/76	0	2846N	37.5	141.3	PPGG		
2649-04235	30000/0000 2-20035/0393	11/01/76	0	2720N	38.5	140.3	GGGG		
2649-04242	30000/0000 2-20035/0394	11/01/76	0	2554N	39.4	139.3	GGGG		
2649-04244	30000/0000 2-20035/0395	11/01/76	0	2428N	40.3	138.2	GGGG		
2649-04251	30000/0000 2-20035/0396	11/01/76	0	2302N	41.2	137.1	FGGG		
2649-04253	30000/0000 2-20035/0397	11/01/76	0	2136N	42.1	136.0	GGGG		
2649-04260	30000/0000 2-20035/0398	11/01/76	0	2010N	42.9	134.8	GGGG		
2649-04262	30000/0000 2-20035/0399	11/01/76	0	1844N	43.7	133.6	GGGG		
2649-04265	30000/0000 2-20035/0400	11/01/76	10	1717N	44.6	132.3	GGGG		
2649-04271	30000/0000 2-20035/0401	11/01/76	10	1551N	45.3	131.0	GGGG		
2649-04274	30000/0000 2-20035/0402	11/01/76	10	1425N	46.1	129.7	GGGG		
2649-07414	30000/0000 2-20035/0451	11/01/76	100	5704N	16.2	158.1	GGGG		
2649-07421	30000/0000 2-20035/0452	11/01/76	100	5541N	17.3	157.3	GGGG		
2649-07423	30000/0000 2-20035/0453	11/01/76	100	5417N	18.4	156.4	GGGG		
2649-07430	30000/0000 2-20035/0454	11/01/76	100	5254N	19.6	155.6	GGGG		
2649-07432	30000/0000 2-20035/0455	11/01/76	100	5130N	20.7	154.8	GGGG		
2649-07435	30000/0000 2-20035/0456	11/01/76	80	5006N	21.8	154.0	GGGG		
2649-07441	30000/0000 2-20035/0457	11/01/76	50	4842N	22.9	153.2	GGGG		
2649-07444	30000/0000 2-20035/0458	11/01/76	80	4717N	24.0	152.4	GGGG		
2649-13181	30000/0000 2-20035/0459	11/01/76	10	3423S	47.4	72.9	GGGG		
2649-14362	30000/0000 2-20035/0420	11/01/76	70	5130N	20.6	154.8	GGGG		
2649-14365	30000/0000 2-20035/0421	11/01/76	90	5006N	21.7	154.0	GGGG		
2649-14371	30000/0000 2-20035/0422	11/01/76	90	4841N	22.8	153.2	GGG		
2649-14424	30000/0000 2-20035/0423	11/01/76	60	3013N	36.4	142.4	GGGG		
2649-14430	30000/0000 2-20035/0424	11/01/76	90	2847N	37.4	141.4	GGGG		
2649-14433	30000/0000 2-20035/0425	11/01/76	70	2721N	38.3	140.4	GGGG		
2649-16194	30000/0000 2-20035/0450	11/01/76	30	5130N	20.6	154.8	GGGG		

KEYS:
CLOUD COVER & 0 TO 100 = X CLOUD COVER.
IMAGE QUALITY BLANKS=HAND NOT AVAILABLE, G=GOOD, P=POOR, F=FAIR.
MSS DATA MODE..... (BLANK)=COMPRESSED, L=LINEAR
MSS IMAGE GAIN..... (BLANK)=LOW GAIN, H=HIGH GAIN

17:18 DEC 17, '76

LANDSAT-2
OBSERVATION ID LISTING
FOR NAN-US
FROM 11/01/76 TO 11/30/76

PAGE 0032

OBSERVATION ID	MICROFILM POSITION RBV	ROLL NO. IN REEL MSS	DATE ACQUIRED	CLOUD COVER	PRINCIPAL POINT OF IMAGE	SUN ELEV. AZIM.	IMAGE-QUAL MSS	MSS DATA IMAGE	MSS MODE GAIN
					LAT LONG				
2649-023374	00000/0000	2-20035/0426	11/01/76	70	3422S 13925E	47.5 73.1	PFGG		
2650-01192	00000/0000	2-20035/0427	11/02/76	0	2841S 11517E	49.9 78.5	GGGG		
2650-01194	00000/0000	2-20035/0428	11/02/76	0	3006S 11453E	49.4 77.0	GGGG		
2650-02430	00000/0000	2-20035/0460	11/02/76	20	3846N 10635E	30.2 147.7	GGGG		
2650-02433	00000/0000	2-20035/0461	11/02/76	40	3721N 10607E	31.2 146.9	GGGG		
2650-02435	00000/0000	2-20035/0462	11/02/76	100	3556N 10540E	32.3 146.1	GGGG		
2650-02442	00000/0000	2-20035/0463	11/02/76	100	3430N 10513E	33.3 145.2	GGGG		
2650-02444	00000/0000	2-20035/0464	11/02/76	90	3305N 10447E	34.3 144.3	GGGG		
2650-02451	00000/0000	2-20035/0429	11/02/76	90	3139N 10421E	35.3 143.4	GGGG		
2650-02453	00000/0000	2-20035/0430	11/02/76	100	3013N 10357E	36.3 142.5	GGGG		
2650-02460	00000/0000	2-20035/0431	11/02/76	80	2848N 10334E	37.3 141.5	GGGG		
2650-02462	00000/0000	2-20035/0432	11/02/76	30	2722N 10310E	38.2 140.5	GGGG		
2650-02465	00000/0000	2-20035/0433	11/02/76	50	2556N 10246E	39.1 139.5	GGGG		
2650-02471	00000/0000	2-20035/0434	11/02/76	70	2429N 10223E	40.1 138.5	GGGG		
2650-04241	00000/0000	2-20035/0435	11/02/76	10	4552N 08320E	24.8 151.7	GGGG		
2650-04244	00000/0000	2-20035/0436	11/02/76	30	4427N 08247E	25.9 150.9	FGGG		
2650-04250	00000/0000	2-20035/0437	11/02/76	10	4302N 08214E	27.0 150.1	GGGG		
2650-04264	00000/0000	2-20035/0438	11/02/76	60	3720N 08015E	31.2 146.9	GGGG		
2650-04285	00000/0000	2-20035/0439	11/02/76	0	3010N 07807E	36.3 142.5	GGG		
2650-04291	00000/0000	2-20035/0440	11/02/76	0	2844N 07743E	37.2 141.5	GGGG		
2650-04294	00000/0000	2-20035/0441	11/02/76	0	2720N 07719E	38.2 140.6	GGGG		
2650-04300	00000/0000	2-20035/0442	11/02/76	0	2554N 07655E	39.1 139.5	GGGG		
2650-04303	00000/0000	2-20035/0443	11/02/76	0	2427N 07632E	40.0 138.5	GGGG		
2650-04305	00000/0000	2-20035/0444	11/02/76	0	2300N 07610E	40.9 137.4	GGGG		
2650-04312	00000/0000	2-20035/0445	11/02/76	0	2135N 07548E	41.8 136.3	FGGG		
2650-04314	00000/0000	2-20035/0446	11/02/76	0	2010N 07527E	42.7 135.1	GGGG		
2650-04321	00000/0000	2-20035/0447	11/02/76	0	1844N 07505E	43.5 133.9	GGGG		
2650-04323	00000/0000	2-20035/0448	11/02/76	0	1713N 07443E	44.3 132.7	GGGG		
2650-04330	00000/0000	2-20035/0449	11/02/76	10	1552N 07422E	45.1 131.4	GGGG		
2650-07472	00000/0000	2-20035/0465	11/02/76	90	5704N 03716E	15.9 158.2	GGGG		
2650-07475	00000/0000	2-20035/0466	11/02/76	90	5541N 03626E	17.0 157.3	GGGG		
2650-07481	00000/0000	2-20035/0467	11/02/76	90	5417N 03538E	18.1 156.5	GGGG		
2650-07484	00000/0000	2-20035/0468	11/02/76	70	5253N 03454E	19.3 155.7	GGGG		
2650-07490	00000/0000	2-20035/0469	11/02/76	20	5129N 03411E	20.4 154.8	GGGG		
2650-07493	00000/0000	2-20035/0470	11/02/76	50	5005N 03331E	21.5 154.1	GGGG		
2650-07495	00000/0000	2-20035/0471	11/02/76	60	4840N 03252E	22.6 153.3	GGGG		

KEYS:

CLOUD COVER X 0 TO 100 = % CLOUD COVER.
 IMAGE QUALITY BLANKS=BAND NOT AVAILABLE. G=GOOD. P=POOR. F=FAIR.
 MSS DATA MODE..... (BLANK)=COMPRESSED, L=LINEAR
 MSS IMAGE GAIN..... (BLANK)=LOW GAIN, H=HIGH GAIN

17:18 DEC 17, '76

LANDSAT-2
OBSERVATION ID LISTING
F9R NAN-US
F9M 11/01/76 TO 11/30/76

PAGE 0033

OBSERVATION ID	MICROFILM ROLL NO./ POSITION IN ROLL	DATE ACQUIRED	CLOUD COVER NUMBER	PRINCIPAL POINT OF IMAGE	LAT	LONG	SUN ELEV.	SUN AZIM.	IMAGE-QUAL		MSS
									RBV	MSS	
2650-07502	30000/0000	11/02/76	50	4716N	03215E	23.7	152.5	GGGG			
2650-07504	30000/0000	11/02/76	40	4551N	03140E	24.8	151.7	GFGG			
2650-14430	30000/0000	11/02/76	90	4842N	07021W	22.5	153.3	GGGG			
2650-14494	30000/0000	11/02/76	40	2555N	07757W	39.0	139.6	GGGG			
2650-14500	30000/0000	11/02/76	20	2429N	07820W	39.9	138.6	GGGG			
2650-23430	30000/0000	11/02/76	80	3256S	13825E	48.3	74.7	GGGG			
2650-23433	30000/0000	11/02/76	70	3422S	13759E	47.6	73.5	GGG			
2651-01244	30000/0000	11/03/76	0	2715S	11414E	50.6	80.4	GGGG			
2651-01250	30000/0000	11/03/76	0	2840S	11351E	50.0	78.9	GGGG			
2651-02491	30000/0000	11/03/76	20	3721N	10443E	31.0	147.1	GFGG			
2651-02505	30000/0000	11/03/76	30	3137N	10258E	35.0	143.6	GGGG			
2651-02575	30000/0000	11/03/76	30	0714N	09643E	49.1	123.1	GGGG			
2651-04293	30000/0000	11/03/76	100	4717N	08230E	23.4	152.6	GGGG			
2651-04295	30000/0000	11/03/76	100	4552N	08155E	24.5	151.8	GGGG			
2651-04302	30000/0000	11/03/76	90	4429N	08121E	25.6	151.0	GGGG			
2651-04304	30000/0000	11/03/76	50	4303N	08048E	26.7	150.3	GGGG			
2651-04311	30000/0000	11/03/76	40	4137N	08017E	27.8	149.5	GGGG			
2651-04313	30000/0000	11/03/76	10	4012N	07946E	28.8	148.7	GGGG			
2651-04340	30000/0000	11/03/76	0	3138N	07705E	35.0	143.6	GGGG			
2651-04352	30000/0000	11/03/76	0	2720N	07552E	37.9	140.8	GGGG			
2651-04354	30000/0000	11/03/76	0	2554N	07529E	38.9	139.8	GGGG			
2651-04361	30000/0000	11/03/76	0	2428N	07506E	39.8	138.7	GGGG			
2651-04363	30000/0000	11/03/76	0	2301N	07444E	40.7	137.7	GGGG			
2651-04370	30000/0000	11/03/76	0	2135N	07422E	41.6	136.5	GGGG			
2651-04372	30000/0000	11/03/76	0	2009N	07400E	42.5	135.4	GGGG			
2651-04375	30000/0000	11/03/76	0	1843N	07338E	43.3	134.2	GGGG			
2651-04381	30000/0000	11/03/76	0	1717N	07317E	44.1	133.0	GGGG			
2651-06151	30000/0000	11/03/76	10	3845N	05329E	29.9	147.9	GGGF			
2651-06154	30000/0000	11/03/76	0	3720N	05301E	30.9	147.1	GGGG			
2651-06160	30000/0000	11/03/76	0	3554N	05234E	32.0	146.3	FGGG			
2651-06163	30000/0000	11/03/76	40	3429N	05207E	33.0	145.4	GGGG			
2651-07531	30000/0000	11/03/76	70	5704N	03553E	15.6	158.3	GGGG			
2651-07533	30000/0000	11/03/76	100	5540N	03503E	16.7	157.4	GGGG			
2651-07540	30000/0000	11/03/76	100	5417N	03416E	17.8	156.5	GGGG			
2651-07542	30000/0000	11/03/76	60	5253N	03330E	19.0	155.7	GGGG			
2651-07551	30000/0000	11/03/76	90	5005N	03207E	21.2	154.1	GGGG			

KEYS:

CLOUD COVER X 0 TO 100 = X CLOUD COVER.
 IMAGE QUALITY BLANKS=HAND NOT AVAILABLE. G=GOOD. P=POOR. F=FAIR.
 MSS DATA MODE..... (BLANK)=COMPRESSED, L=LINEAR
 MSS IMAGE GAIN..... (BLANK)=LOW GAIN, H=HIGH GAIN

17:18 DEC 17, '76

LANDSAT-2
OBSERVATION ID LISTING
F9R NNN-US
FROM 11/01/76 TO 11/30/76

PAGE 0034

OBSERVATION ID	MICROFILM ROLL NO./ POSITION IN ROLL	DATE ACQUIRED	CLOUD COVER	SRBIT NUMBER	PRINCIPAL POINT OF IMAGE	SUN ELEV.	SUN AZIM.	IMAGE QUAL	MSS DATA	MSS
	RVB				LAT LONG			RVB	MSS	DATA
								123	45678	M9DE GAIN
2651-07554	00000/0000	2-20035/0505	11/03/76	9072	4840N 03129E	22.3	153.4	GGGG		
2651-07560	00000/0000	2-20035/0506	11/03/76	9072	4715N 03053E	23.4	152.6	GGGG		
2651-07563	00000/0000	2-20035/0507	11/03/76	9072	4551N 03018E	24.5	151.8	GGGG		
2651-14484	00000/0000	2-20035/0508	11/03/76	9076	4841N 07148W	22.2	153.4	GGGG		
2652-02581	00000/0000	2-20035/0509	11/04/76	9083	2555N 09953E	38.6	140.0	GGGG		
2652-04360	00000/0000	2-20035/0510	11/04/76	9084	4427N 07955E	25.3	151.2	GGGG		
2652-04374	00000/0000	2-20035/0511	11/04/76	9084	3845N 07753E	29.6	148.0	GGGG		
2652-04392	00000/0000	2-20035/0512	11/04/76	9084	3302N 07606E	33.8	144.7	GGGG		
2652-04395	00000/0000	2-20035/0513	11/04/76	9084	3137N 07541E	34.8	143.8	GGGG		
2652-04401	00000/0000	2-20035/0514	11/04/76	9084	3012N 07516E	35.7	142.9	GGGG		
2652-04404	00000/0000	2-20035/0515	11/04/76	9084	2846N 07451E	36.7	142.0	GGGG		
2652-04410	00000/0000	2-20035/0516	11/04/76	9084	2720N 07427E	37.7	141.0	GGGG		
2652-04413	00000/0000	2-20035/0517	11/04/76	9084	2554N 07404E	38.6	140.0	GGGG		
2652-04415	00000/0000	2-20035/0518	11/04/76	9084	2428N 07341E	39.6	139.0	GGGG		
2652-04422	00000/0000	2-20035/0519	11/04/76	9084	2302N 07318E	40.5	137.9	GGGG		
2652-04424	00000/0000	2-20035/0520	11/04/76	9084	2137N 07256E	41.4	136.8	GGGG		
2652-04431	00000/0000	2-20035/0521	11/04/76	9084	2010N 07235E	42.2	135.7	GGGG		
2652-06210	00000/0000	2-20035/0522	11/04/76	9085	3845N 05203E	29.6	148.0	GGGG		
2652-06215	00000/0000	2-20035/0523	11/04/76	9085	3554N 05108E	31.7	146.4	GGGG		
2652-06221	00000/0000	2-20035/0524	11/04/76	9085	3429N 05042E	32.7	145.6	GGGG		
2652-06224	00000/0000	2-20035/0525	11/04/76	9085	3303N 05016E	33.7	144.7	GGGG		
2652-06230	00000/0000	2-20035/0526	11/04/76	9085	3137N 04950E	34.7	143.8	GGGG		
2652-06233	00000/0000	2-20035/0527	11/04/76	9085	3011N 04925E	35.7	142.9	GGGG		
2652-06235	00000/0000	2-20035/0528	11/04/76	9085	2845N 04901E	36.7	142.0	GGGG		
2652-07594	00000/0000	2-20035/0529	11/04/76	9086	5417N 03249E	17.5	156.6	GGGG		
2652-08000	00000/0000	2-20035/0530	11/04/76	9086	5253N 03205E	18.7	155.8	GGGG		
2652-08003	00000/0000	2-20035/0531	11/04/76	9086	5129N 03122E	19.8	155.0	GGGG		
2652-08005	00000/0000	2-20035/0532	11/04/76	9086	5005N 03042E	20.9	154.2	GGGG		
2652-08012	00000/0000	2-20035/0533	11/04/76	9086	4840N 03003E	22.0	153.5	GGGG		
2652-08014	00000/0000	2-20035/0534	11/04/76	9086	4715N 02926E	23.1	152.7	GGGG		
2652-08021	00000/0000	2-20035/0535	11/04/76	9086	4550N 02851E	24.2	151.9	GGGG		
2652-08023	00000/0000	2-20035/0536	11/04/76	9086	4425N 02817E	25.3	151.2	GGGG		
2652-08030	00000/0000	2-20035/0537	11/04/76	9086	4301N 02745E	26.4	150.4	GGGG		
2652-13104	00000/0000	2-20035/0538	11/04/76	9089	5006N 04646W	20.8	154.3	GGGG		
2652-13110	00000/0000	2-20035/0539	11/04/76	9089	4841N 04724W	21.9	153.5	GGGG		
2652-13113	00000/0000	2-20035/0540	11/04/76	9089	4717N 04800W	23.0	152.7	GGGG		

KEYS: CLOUD COVER % 0 TO 100 = % CLOUD COVER.
 IMAGE QUALITY BLANKS=BAND NOT AVAILABLE. G=GOOD. P=POOR. F=FAIR.
 MSS DATA M9DE..... (BLANK)=COMPRESSED, L=LINEAR
 MSS IMAGE GAIN..... (BLANK)=LOW GAIN, H=HIGH GAIN

17:18 DEC 17, '76

PAGE 0035

LANDSAT-2
OBSERVATION ID LISTING
FOR NAN-US
FROM 11/01/76 TO 11/30/76

OBSERVATION ID	MICROFILM ROLL NO./ POSITION IN ROLL RBV	DATE ACQUIRED	CLOUD COVER	SUNBIT NUMBER	PRINCIPAL POINT OF IMAGE LAT LONG	SUN ELEV. AZIM.	IMAGE-QUAL RBV MSS DATA IMAGE	MSS MODE GAIN
2652-13115	30000/0000 2-20035/0512	11/04/76	80	9089	4552N 04835W	24.1 152.0	GGGF	
2652-13122	30000/0000 2-20035/0513	11/04/76	90	9089	4427N 04908W	25.2 151.2	GGGG	
2652-13124	30000/0000 2-20035/0514	11/04/76	70	9089	4302N 04940W	26.3 150.4	GGGG	
2652-13131	30000/0000 2-20035/0515	11/04/76	60	9089	4137N 05011W	27.4 149.7	GGGG	
2652-23542	30000/0000 2-20035/0533	11/04/76	80	9095	3257S 13533E	48.6 75.5	GGGG	
2652-23545	30000/0000 2-20035/0534	11/04/76	90	9095	3423S 13507E	48.0 74.2	GGGG	
2653-03001	30000/0000 2-20035/0535	11/05/76	60	9097	3846N 10217E	29.4 148.2	GGGG	
2653-03003	30000/0000 2-20035/0536	11/05/76	50	9097	3720N 10149E	30.4 147.4	GGGG	
2653-04421	30000/0000 2-20035/0537	11/05/76	40	9098	4300N 07756E	26.1 150.5	GGGG	
2653-04423	30000/0000 2-20035/0538	11/05/76	40	9098	4136N 07726E	27.2 149.7	GGGG	
2653-04430	30000/0000 2-20035/0539	11/05/76	10	9098	4010N 07656E	28.3 149.0	GGGG	
2653-04432	30000/0000 2-20035/0540	11/05/76	0	9098	3845N 07627E	29.3 148.2	GGGG	
2653-04435	30000/0000 2-20035/0541	11/05/76	0	9098	3719N 07559E	30.4 147.4	GGGG	
2653-04441	30000/0000 2-20035/0542	11/05/76	0	9098	3554N 07532E	31.4 146.5	GGGG	
2653-04444	30000/0000 2-20035/0543	11/05/76	0	9098	3428N 07505E	32.5 145.7	GGGG	
2653-04450	30000/0000 2-20035/0544	11/05/76	0	9098	3302N 07439E	33.5 144.9	GGGG	
2653-04453	30000/0000 2-20035/0545	11/05/76	0	9098	3137N 07414E	34.5 144.0	GGGG	
2653-04455	30000/0000 2-20035/0546	11/05/76	0	9098	3011N 07349E	35.5 143.1	GGGG	
2653-04462	30000/0000 2-20035/0547	11/05/76	0	9098	2845N 07324E	36.5 142.2	GGGG	
2653-04464	30000/0000 2-20035/0548	11/05/76	0	9098	2719N 07300E	37.4 141.2	GGGG	
2653-04471	30000/0000 2-20035/0549	11/05/76	0	9098	2552N 07237E	38.4 140.2	GGGG	
2653-04473	30000/0000 2-20035/0550	11/05/76	0	9098	2426N 07214E	39.3 139.2	GGGG	
2653-04480	30000/0000 2-20035/0551	11/05/76	0	9098	2301N 07152E	40.2 138.1	GGGG	
2653-04482	30000/0000 2-20035/0552	11/05/76	0	9098	2135N 07130E	41.1 137.0	GGGG	
2653-13160	30000/0000 2-20035/0573	11/05/76	30	9103	5130N 04730W	19.4 155.1	GGGG	
2653-13162	30000/0000 2-20035/0574	11/05/76	50	9103	5006N 04811W	20.5 154.3	GGGG	
2653-13165	30000/0000 2-20035/0575	11/05/76	50	9103	4841N 04850W	21.6 153.6	GGGG	
2653-13171	30000/0000 2-20035/0576	11/05/76	80	9103	4716N 04926W	22.7 152.8	GGGG	
2653-13174	30000/0000 2-20035/0577	11/05/76	90	9103	4551N 05001W	23.8 152.0	GGGG	
2653-13180	30000/0000 2-20035/0578	11/05/76	100	9103	4426N 05035W	24.9 151.3	GGGG	
2653-13183	30000/0000 2-20035/0579	11/05/76	90	9103	4301N 05107W	26.0 150.5	GGGG	
2653-13185	30000/0000 2-20035/0580	11/05/76	90	9103	4136N 05138W	27.1 149.8	GGGG	
2653-14594	30000/0000 2-20035/0581	11/05/76	90	9104	5005N 07401W	20.5 154.3	GGGG	
2654-13214	30000/0000 2-20035/0565	11/06/76	100	9117	5129N 04859W	19.1 155.2	GGGF	
2654-13223	30000/0000 2-20035/0566	11/06/76	100	9117	4840N 05017W	21.4 153.6	GGGG	
2654-13225	30000/0000 2-20035/0567	11/06/76	90	9117	4716N 05053W	22.5 152.9	GGGG	

KEYS: CLOUD COVER X 0 TO 100 = X CLOUD COVER.
 IMAGE QUALITY BLANKS=BAD NOT AVAILABLE. G=GOOD. P=POOR. F=FAIR.
 MSS DATA MODE..... (BLANK)=COMPRESSED, L=LINEAR
 MSS IMAGE GAIN..... (BLANK)=LOW GAIN, H=HIGH GAIN

17:18 DEC 17, '76

LANDSAT-2
OBSERVATION ID LISTING
FOR NNN-US
FROM 11/01/76 TO 11/30/76

PAGE 0036

OBSERVATION ID	MICROFILM ROLL NO./ POSITION IN ROLL RBV	DATE ACQUIRED	CLOUD COVER NUMBER	PRINCIPAL POINT OF IMAGE LAT LONG	SUN ELEV. AZIM.	IMAGE-QUAL RBV MSS DATA IMAGE 123 45678 MODE GAIN
2654-13232	0000/0000 2-20035/0568	11/06/76	100	4552N 05129W	23.6 152.1	FFGF
2654-13234	0000/0000 2-20035/0569	11/06/76	100	4428N 05203W	24.7 151.4	FGFG
2654-13241	0000/0000 2-20035/0570	11/06/76	100	4300N 05235W	25.7 150.6	FGGG
2654-13273	0000/0000 2-20035/0571	11/06/76	100	4135N 05305W	26.8 149.9	FGGF
2654-13052	0000/0000 2-20035/0572	11/06/76	100	5005N 07528W	20.2 154.4	GGFG

KEYS: CLOUD COVER X 0 TO 100 = % CLOUD COVER.
IMAGE QUALITY BLANKS=BAD NOT AVAILABLE. G=GOOD. P=POOR. F=FAIR.
MSS DATA MODE (BLANK)=UNCOMPRESSED, L=LINEAR
MSS IMAGE GAIN (BLANK)=LOW GAIN, H=HIGH GAIN

LANDSAT 2 COORDINATE LISTING

17:18 DEC 17, '76

LANDSAT-2
COORDINATE LISTING
FOR N9N-US

FROM 11/01/76 TO 11/30/76

PAGE 0038

PRINCIPAL PT. OF IMAGE	98SERVATION ID	CC %	QUALITY RBV MSS 12345678	PRINCIPAL PT. OF IMAGE	98SERVATION ID	CC %	QUALITY RBV MSS 12345678	PRINCIPAL PT. OF IMAGE	98SERVATION ID	CC %	QUALITY RBV MSS 12345678
15131E	2642-22554	60	GGGG	1522E	2649-23374	70	PFUG	11517E	2650-01192	0	GGGG
1501E	2643-23004	90	GGGG	13825E	2650-23430	80	GGGG	11515E	2643-02042	0	GGGG
1504E	2642-22563	90	GGGG	13759E	2650-23433	70	GGG	11453E	2650-01194	0	GGGG
15028E	2643-23010	90	GGGG	13539E	2652-23542	80	FGGG	11450E	2643-02045	0	GGGG
15019E	2642-22570	100	GGGG	13507E	2652-23545	90	FGGG	11444E	2645-02134	10	GGGG
1505E	2643-23013	40	GGGG	1258E	2644-00462	50	GGGG	11442E	2644-02091	80	GGGG
1454E	2642-22572	100	GGGG	12137E	2645-00514	40	GGGG	11424E	2643-02051	20	GGGG
1492E	2643-23015	40	GGGG	12113E	2645-00520	40	GGGG	11415E	2644-02094	90	GGGG
14917E	2643-23022	30	GGGG	11325E	2646-00572	70	GGGG	11414E	2645-02141	10	GGGG
14903E	2644-23064	40	GGGG	11246E	2646-00575	70	GGGG	11414E	2651-01244	0	GGGG
14853E	2643-23024	50	GGGG	11229E	2641-01514	10	FFFG	11400E	2643-02054	60	GGGG
1480E	2644-23071	10	GGGG	1121E	2646-00581	50	GGGG	11351E	2651-01250	0	GGGG
1482E	2643-23031	70	GGGG	11207E	2647-01024	30	GGGG	11348E	2644-02100	60	GGGG
1483E	2645-23114	0	GGGG	11200E	2641-01521	30	GGGG	11345E	2645-02143	0	GGGG
14816E	2644-23073	0	GGGG	11144E	2647-01030	10	GGGG	11335E	2643-02060	80	GGGG
14803E	2643-23033	40	GGGG	11133E	2641-01523	20	GGGG	11323E	2644-02103	40	GGGG
14802E	2645-23120	0	GGGG	11119E	2647-01033	20	GGGG	11317E	2646-02192	10	GGGG
14736E	2643-23040	30	GGGG	11106E	2643-02015	0	GGGG	11317E	2645-02150	0	GGGG
14727E	2644-23082	10	GGGG	11106E	2641-01530	30	FGGG	11312E	2643-02063	90	GGGG
14702E	2644-23085	10	GGGG	11759E	2647-01035	50	GGGG	11258E	2644-02105	60	GGGG
1453E	2646-23172	60	GGGG	11745E	2648-01082	40	GGGG	11250E	2645-02152	0	FGGG
14536E	2644-23091	10	GGGG	11745E	2641-01532	60	GGGG	11249E	2643-02065	90	FGGG
14509E	2644-23094	10	GGGG	11735E	2643-02022	0	G	11247E	2646-02195	10	GGGG
14542E	2644-23100	40	GGGG	11720E	2648-01085	80	GGGG	11233E	2644-02112	100	GGGG
14537E	2645-23143	10	GGGG	11714E	2641-01535	90	GGGG	11226E	2643-02072	100	FGGG
14512E	2645-23150	10	GGGG	11705E	2643-02024	0	GGGG	11224E	2645-02155	0	GGGG
1445E	2645-23152	0	GGGG	11655E	2648-01091	60	GGGG	11218E	2646-02201	0	GGGG
14417E	2645-23155	20	GGGG	11650E	2641-01541	90	GGGG	11208E	2644-02114	100	GGGG
1434E	2646-23204	10	GGGG	11642E	2649-01134	0	GGGG	11203E	2643-02074	100	GGGG
14317E	2646-23210	0	GGGG	11640E	2644-02073	100	GGGF	11158E	2645-02161	0	GGGG
14250E	2646-23213	10	GGGG	11638E	2643-02031	0	FGGG	11144E	2644-02121	90	GGGG
14217E	2647-23262	90	GGGF	11618E	2649-01140	0	GGGG	11141E	2643-02081	80	FGGG
14151E	2647-23264	90	GGGG	11609E	2644-02080	100	GGGG	11132E	2645-02164	0	FGGG
14124E	2647-23271	20	FFFG	11605E	2643-02033	0	FGGG	11123E	2646-02210	0	GGGG
14051E	2648-23320	60	GGGG	11595E	2649-01143	20	GGGG	11122E	2647-02253	0	GGGG
14025E	2648-23323	80	GGGG	11542E	2643-02040	0	GGGG	11121E	2644-02123	90	GGGG

KEYS: CLOUD COVER % 0 TO 100 = % CLOUD COVER.
IMAGE QUALITY BLANKS=HAND NOT AVAILABLE. G = GOOD. P = POOR. F = FAIR.

17:18 DEC 17, '76

LANDSAT-2
COORDINATE LISTING
FOR NBN-US
FROM 11/01/76 TO 11/30/76

PAGE 0039

PRINCIPAL PT. OF IMAGE	OBSERVATION ID	CC X	QUALITY RBV MSS 12345678	PRINCIPAL PT. OF IMAGE	OBSERVATION ID	CC X	QUALITY RBV MSS 12345678	PRINCIPAL PT. OF IMAGE	OBSERVATION ID	CC X	QUALITY RBV MSS 12345678
11107E 3011N	2645-02170	40	GGGG	10248E 3138N	2649-02392	100	GGGG	08549E 2135N	2643-03512	10	GGGG
11108E 3428N	2644-02130	90	GGGG	10240E 3556N	2650-02435	100	GGGG	08540E 4426N	2648-04131	90	GGGG
11106E 3429N	2646-02213	0	GGGG	10239E 2554N	2648-02352	60	GGGG	08528E 2008N	2643-03515	10	GGGG
11102E 3847N	2647-02255	0	GGGG	10223E 3013N	2649-02395	80	GGGG	08522E 4071N	2649-04180	40	GGGG
11042E 2845N	2645-02173	90	GGGG	10213E 3430N	2650-02442	100	GGGG	08447E 4551N	2649-04183	80	GGGG
11103E 2402N	2644-02132	90	GGGG	10458E 2847N	2649-02401	80	GGGG	08429E 2720N	2645-04011	0	GGGG
11102E 3303N	2646-02215	10	GGGG	10447E 3305N	2650-02444	90	GGGG	08425E 2135N	2644-03570	0	GGGG
11024E 3721N	2647-02262	0	GGGG	10443E 3721N	2651-02491	20	GGGG	08413E 4427N	2649-04185	80	GGGG
11101E 2719N	2645-02175	90	GGGG	10435E 2720N	2649-02404	60	GGGG	08405E 2554N	2645-04013	0	GGGG
11101E 2136N	2644-02135	60	GGGG	10421E 3139N	2650-02451	90	GGGG	08403E 2009N	2644-03573	10	GGGG
10957E 3555N	2647-02264	0	GGGG	10411E 2554N	2649-02410	80	GGGG	08343E 2429N	2645-04020	0	GGGG
10951E 2010N	2644-02182	90	GGGG	10357E 3013N	2650-02453	100	GGGG	08341E 4302N	2649-04192	60	GGGG
10933E 3429N	2645-02184	80	GGGG	10347E 2428N	2649-02413	90	GGGG	08320E 2302N	2650-04241	10	GGGG
10931E 3427N	2647-02271	10	GGGG	10334E 2848N	2650-02460	80	GGGG	08320E 2302N	2645-04022	0	GGGG
10911E 3302N	2647-02191	90	GGGG	10326E 2720N	2649-02415	50	GGGG	08309E 4137N	2649-04194	70	GGGG
10905E 3403N	2647-02273	20	GGGG	10258E 3137N	2651-02505	30	GGGG	08303E 2720N	2646-04065	0	GGGG
10852E 2720N	2646-02233	30	GGGG	10248E 2556N	2650-02465	50	GGGG	08247E 4427N	2650-04244	30	GGGG
10849E 2137N	2645-02193	80	GGGG	10223E 2429N	2650-02471	70	GGGG	08240E 2554N	2646-04071	0	GGGG
10840E 3138N	2647-02280	10	GGGG	10217E 3846N	2653-03001	60	GGGG	08236E 2009N	2645-04031	0	GGGG
10829E 2554N	2646-02240	80	GGGG	10149E 3720N	2653-03003	50	GGGG	08230E 4717N	2651-04293	100	GGGG
10815E 3012N	2647-02282	60	GGGG	09953E 2555N	2652-02581	80	GGGG	08217E 2428N	2646-04074	0	GGGG
10806E 2428N	2646-02242	100	GGGG	09643E 0714N	2651-02575	30	GGGG	08215E 1843N	2645-04034	0	GGGG
10751E 2846N	2647-02285	70	GGGG	09216E 4301N	2643-03451	50	GGGG	08214E 4302N	2650-04250	10	GGGG
10743E 2302N	2646-02245	100	GGGG	08957E 4425N	2645-03561	10	GGGG	08155E 4552N	2651-04295	100	GGGG
10739E 3304N	2648-02332	80	GGGG	08924E 4300N	2645-03563	0	GGGG	08138E 2720N	2647-04123	10	GGGG
10727E 2720N	2647-02291	90	GGGG	08832E 4426N	2646-04015	20	GGGG	08133E 2137N	2646-04083	0	GGGG
10714E 3138N	2648-02334	90	GGGG	08800E 4301N	2646-04021	10	GGGG	08121E 4428N	2651-04302	0	GGGG
10703E 2554N	2647-02294	80	GGGG	08728E 4137N	2646-04024	0	GGGG	08115E 2554N	2647-04130	0	GGGG
10650E 3011N	2648-02341	70	GGGG	08707E 4426N	2647-04073	10	GGGG	08111E 2011N	2646-04085	0	GGGG
10635E 3430N	2649-02383	70	GGGG	08658E 2552N	2643-03501	20	GGGG	08057E 2428N	2647-04132	0	GGGG
10626E 2846N	2648-02343	30	GGGG	08648E 4716N	2648-04122	100	GGGG	08050E 1844N	2646-04092	0	GGGG
10613E 3304N	2649-02390	90	GGGG	08634E 4302N	2647-04080	0	GGGG	08048E 4303N	2651-04304	50	GGGG
10607E 3721N	2650-02433	40	GGGG	08614E 4551N	2648-04125	100	GGGG	08030E 2302N	2647-04135	0	GGGG
10602E 2720N	2648-02350	50	GGGG	08611E 2301N	2643-03510	10	GGGG	08017E 4137N	2651-04311	40	GGGG
				08603E 4137N	2647-04082	0	GGGG	08015E 3720N	2650-04264	60	GGGG

KEYS: CLOUD COVER X 0 TO 100 = X CLOUD COVER.
 IMAGE QUALITY BLANKS-BAND NOT AVAILABLE. G = GOOD. P = POOR. F = FAIR.

17:18 DEC 17, '76

LANDSAT-2
COORDINATE LISTING
FOR NVN-US
FROM 11/01/76 TO 11/30/76

PAGE 0040

PRINCIPAL PT. OF IMAGE	OBSERVATION ID	CC X	QUALITY RBV MSS 12345678	PRINCIPAL PT. OF IMAGE	OBSERVATION ID	CC X	QUALITY RBV MSS 12345678	PRINCIPAL PT. OF IMAGE	OBSERVATION ID	CC X	QUALITY RBV MSS 12345678
08011E 2120N	2648-04181	0	GGGG	07630E 1844N	2648-04262	0	GGGG	07256E 2137N	2652-04424	0	GGGG
08008E 2136N	2647-04141	0	GGGG	07627E 1845N	2653-04432	0	GGGG	07237E 2552N	2653-04471	0	GGGG
07955E 4427N	2652-04360	90	GGGG	07613E 1132N	2644-04225	20	GGGG	07235E 2010N	2652-04431	0	GGGG
07948E 2255N	2648-04184	0	GGGG	07610E 2300N	2650-04305	0	GGGG	07214E 2426N	2653-04473	0	GGGG
07946E 4012N	2651-04313	10	GGGG	07609E 1717N	2649-04265	10	GGGG	07152E 2301N	2653-04480	0	GGGG
07946E 2009N	2647-04144	0	GGGG	07606E 1302N	2652-04392	10	GGGG	07130E 2135N	2653-04482	0	GGGG
07925E 2239N	2648-04190	0	GGGG	07559E 1719N	2653-04435	0	GGGG	06529E 4013N	2643-05291	20	GGGG
07925E 1843N	2647-04150	10	GGGG	07552E 2740N	2651-04352	0	GGGG	06459E 3848N	2643-05294	0	GGGG
07908E 2846N	2649-04233	0	GGGG	07548E 2135N	2650-04312	0	GGGG	06401E 4010N	2644-05350	70	GGGG
07903E 2303N	2648-04193	0	GGGG	07540E 1551N	2649-04271	10	GGGG	06332E 3845N	2644-05352	50	GGGG
07903E 1717N	2647-04153	10	GGGG	07541E 1554N	2653-04441	0	GGGG	06303E 3719N	2644-05355	30	GGGG
07844E 1250N	2649-04235	0	GGGG	07532E 1554N	2653-04441	0	GGGG	06248E 3140N	2643-05314	0	GGGG
07842E 1250N	2647-04155	20	GGGG	07529E 2554N	2651-04354	0	GGGG	06236E 3553N	2644-05361	60	GGGG
07840E 2137N	2648-04195	0	GGGG	07527E 2010N	2650-04314	0	GGGG	06209E 3428N	2644-05364	50	GGGG
07821E 2554N	2649-04242	0	GGGG	07527E 1425N	2649-04274	10	GGGG	06157E 2848N	2643-05323	0	GGGG
07819E 2010N	2648-04202	0	GGGG	07516E 4012N	2652-04401	0	GGGG	06143E 3302N	2644-05370	60	GGGG
07807E 3010N	2650-04245	0	GGGG	07506E 2428N	2651-04361	0	GGGG	06133E 2723N	2643-05330	30	GGGG
07758E 2428N	2649-04244	0	GGGG	07505E 3428N	2653-04444	0	GGGG	06118E 3136N	2644-05373	40	GGGG
07757E 1844N	2648-04204	0	GGGG	07503E 1844N	2650-04321	0	GGGG	06110E 2557N	2643-05332	10	GGGG
07756E 4300N	2653-04421	40	GGGG	07501E 2846N	2653-04404	0	GGGG	06033E 3010N	2644-05375	20	GGGG
07753E 3845N	2652-04374	90	GGGG	07444E 2301N	2651-04363	0	GGGG	06029E 2845N	2644-05382	0	GGGG
07743E 2844N	2650-04291	0	GGGG	07443E 1718N	2650-04323	0	GGGG	06018E 3302N	2645-05424	30	GGGG
07736E 2302N	2649-04251	0	GGGG	07439E 1302N	2653-04450	0	GGGG	06012E 3720N	2646-05471	90	GGGG
07736E 1717N	2648-04211	0	GGGG	07427E 2720N	2653-04410	0	GGGG	06005E 2719N	2644-05384	0	GGGG
07726E 4136N	2653-04423	40	GGGG	07422E 2135N	2651-04370	0	GGGG	05952E 3136N	2645-05431	10	GGGG
07719E 2200N	2650-04294	0	GGGG	07422E 1552N	2650-04330	10	GGGG	05945E 3554N	2646-05473	70	GGGG
07719E 1006N	2647-04173	10	GGGG	07414E 1137N	2653-04453	0	GGGG	05942E 2553N	2644-05391	10	GGGG
07715E 1551N	2648-04213	10	GGGG	07404E 2554N	2653-04413	0	GGGG	05927E 3011N	2645-05433	10	GGGG
07714E 2136N	2649-04253	0	GGGG	07400E 2009N	2651-04372	0	GGGG	05918E 3429N	2646-05480	70	GGGG
07705E 3138N	2651-04340	0	GGGG	07349E 1011N	2653-04455	0	GGGG	05903E 2845N	2645-05440	0	GGGG
07656E 4010N	2653-04430	10	GGGG	07341E 2428N	2653-04415	0	GGGG	05852E 3303N	2646-05482	80	GGGG
07655E 2554N	2650-04300	0	GGGG	07338E 1843N	2651-04375	0	GGGG	05845E 3719N	2647-05525	100	GGGG
07654E 1425N	2648-04220	10	GGGG	07324E 2845N	2653-04462	0	GGGG	05840E 2719N	2645-05442	0	GGGG
07652E 2010N	2649-04260	0	GGGG	07318E 2302N	2652-04422	0	GGGG	05826E 3137N	2646-05485	80	GGGG
07633E 1258N	2648-04222	10	GGGG	07317E 1717N	2651-04381	0	GGGG	05817E 2553N	2645-05445	10	GGGG
07632E 2427N	2650-04303	0	GGGG	07300E 2719N	2653-04464	0	GGGG	05801E 3011N	2646-05491	70	GGGG

KEYS: CLOUD COVER X 0 TO 100 = X CLOUD COVER.
IMAGE QUALITY BLANKS=BAD NOT AVAILABLE. G = GOOD. P = POOR. F = FAIR.

LANDSAT-2
COORDINATE LISTING
FOR N9N-US
FROM 11/01/76 TO 11/30/76

[illegible]

KEYS: CLOUD COVER % 0 TO 100 = % CLOUD COVER.
IMAGE QUALITY BLANKS=BAND NOT AVAILABLE, G = GOOD, P = POOR, F = FAIR.

17:18 DEC 17, 1976

PAGE 0042

LANDSAT-2
COORDINATE LISTING
FOR NNN-US
FROM 11/01/76 TO 11/30/76

PRINCIPAL PT. OF IMAGE	RESERVATION ID	CC X	QUALITY RBV MSS 12345678	PRINCIPAL PT. OF IMAGE	RESERVATION ID	CC X	QUALITY RBV MSS 12345678	PRINCIPAL PT. OF IMAGE	RESERVATION ID	CC X	QUALITY RBV MSS 12345678
0310E	2650-07504	40	GFGG	05001*	2653-1317*	90	GFGG	05942*	2646-12592	60	FFFF
03129E	2651-07554	100	GFGG	05011*	2652-13131	60	GFGG	05943*	2644-14073	100	FFFF
03122E	2652-08003	100	GFGG	05017*	2654-13223	100	GFGG	05951*	2644-12535	90	GFGG
0402N	2643-07214	40	GFGG	05035*	2653-13180	100	GFGG	05955*	2645-12552	60	GFGG
03023E	2651-07560	100	GFGG	05053*	2654-13225	90	GFGG	06007*	2646-12595	40	GFGG
03046E	2643-07220	30	GFGG	05107*	2653-13183	90	GFGG	06022*	2645-12555	40	GFGG
03042E	2652-08005	100	GFGG	05129*	2654-13322	100	FFFF	06025*	2644-14075	90	GFGG
03025E	2643-07223	30	GFGG	05136*	2653-13185	90	GFGG	06031*	2646-13001	40	FFFF
03018E	2651-07563	80	GFGG	05142*	2642-12340	90	GFGG	06049*	2645-12561	10	FFGG
03003E	2652-08012	100	GFGG	05203*	2654-13224	100	GFGG	06057*	2646-13004	50	GFGG
02926E	2652-08014	90	GFGG	05204*	2642-12343	80	FFFF	06105*	2644-14082	30	GFGG
02851E	2652-08021	90	GFGG	05232*	2644-13241	100	GFGG	06108*	2647-13050	40	FFFF
02817E	2652-08023	50	GFGG	05247*	2643-12322	80	GFGG	06117*	2645-12564	10	FFGG
02874E	2652-08030	20	GFGG	05302*	2654-13243	100	GFGG	06123*	2646-13010	40	GFGG
02449E	2642-08441	60	GFGG	05308*	2642-12325	60	GPPP	06132*	2647-13053	90	GFGG
02440E	2643-07293	10	GFGG	05311*	2642-12354	90	GFGG	06143*	2644-14084	50	GFGG
02419E	2643-07300	10	GFGG	05330*	2642-12361	60	FFFF	06146*	2645-12570	0	GFGG
02352E	2642-08444	60	GFGG	05352*	2642-12361	100	GFGG	06157*	2647-13055	90	FFFF
02314E	2644-07352	10	GFGG	05352*	2643-12404	90	FFFF	06220*	2644-14091	80	GFGG
02258E	2642-08450	10	GFGG	05358*	2642-12363	70	GFGG	06222*	2647-13062	90	GFGG
02252E	2644-07354	0	FFFF	05415*	2642-12410	80	GFGG	06231*	2645-14140	10	GFGG
02207E	2642-08453	30	GFGG	05424*	2642-12370	50	GFGG	06245*	2646-13022	90	GFGG
02127E	2645-07412	30	GFGG	05438*	2643-12413	30	F	06248*	2647-13064	100	GFGG
02120E	2642-08455	30	GFGG	05522*	2643-12422	50	GFGG	06255*	2644-14093	80	GFGG
01954E	2643-08513	10	FSGG	05550*	2643-12424	80	GFGG	06309*	2645-14143	40	GFGG
04646W	2652-13104	90	GFGG	05550*	2644-12480	50	GFGG	06314*	2647-13071	100	FFFF
04724*	2652-13110	90	GFGG	05714*	2644-12482	50	GFGG	06314*	2646-13024	80	FFFF
04730W	2653-13160	30	GFGG	05721*	2644-14061	90	GFGG	06319*	2646-14132	90	GFGG
04800W	2652-13113	50	GFGG	05759*	2643-12445	70	GFGG	06328*	2644-14100	70	GFGG
04811W	2653-13162	50	GFGG	05804*	2644-12491	90	GFGG	06342*	2647-13073	100	FFFF
04835W	2652-13115	80	GFGG	05811*	2644-14064	90	GFGG	06359*	2646-14194	100	FFFF
04850W	2653-13165	50	FGGF	05827*	2643-12451	50	GFGG	06401*	2644-14102	80	GFGG
04859W	2654-13214	100	GFGF	05829*	2644-12494	80	FFFF	06410*	2647-13080	50	GFGG
04908W	2652-13122	90	GFGG	05855*	2644-12500	60	PGGG	06420*	2645-14152	20	GFGG
04926W	2653-13171	80	PGFG	05858*	2644-14070	100	GFGG	06432*	2644-14105	60	GFGG
04940W	2652-13124	70	GFGG	05904*	2645-12443	10	FFGG	06436*	2646-14201	90	GFGG

KEYS: CLOUD COVER : 0 TO 100 = % CLOUD COVER.
 IMAGE QUALITY BLANKS=BAD NOT AVAILABLE. G = GOOD. P = POOR. F = FAIR.

17:18 DEC 17, 1976

LANDSAT-2
COORDINATE LISTING
FOR N9N-US
FROM 11/01/76 TO 11/30/76

PAGE 0043

PRINCIPAL PT. OF IMAGE	LAT	LONG	CC %	QUALITY RBV MSS	OBSERVATION ID	PRINCIPAL PT. OF IMAGE	LAT	LONG	CC %	QUALITY RBV MSS	OBSERVATION ID
06455*	4427N	0655*	50	GGG	2645-14154	06455*	4427N	0655*	50	GGG	2645-14154
06524*	5007N	06524*	40	GGG	2647-14253	06524*	5007N	06524*	40	GGG	2647-14253
06528*	401N	06528*	60	GGG	2645-14161	06528*	401N	06528*	60	GGG	2645-14161
06541*	3423N	06541*	10	GGG	2649-14181	06541*	3423N	06541*	10	GGG	2649-14181
06600*	4436N	06600*	70	GGG	2645-14163	06600*	4436N	06600*	70	GGG	2645-14163
06602*	4642N	06602*	20	GGG	2647-14255	06602*	4642N	06602*	20	GGG	2647-14255
06612*	5131N	06612*	80	GGG	2648-14304	06612*	5131N	06612*	80	GGG	2648-14304
06652*	5006N	06652*	30	GGG	2648-14311	06652*	5006N	06652*	30	GGG	2648-14311
06724*	4437N	06724*	80	GGG	2646-14241	06724*	4437N	06724*	80	GGG	2646-14241
06730*	4642N	06730*	80	GGG	2648-14313	06730*	4642N	06730*	80	GGG	2648-14313
06736*	5130N	06736*	70	GGG	2646-14362	06736*	5130N	06736*	70	GGG	2646-14362
06755*	4011N	06755*	50	GGG	2646-14242	06755*	4011N	06755*	50	GGG	2646-14242
06817*	5006N	06817*	90	GGG	2649-14365	06817*	5006N	06817*	90	GGG	2649-14365
06824*	3446N	06824*	60	GGG	2646-14250	06824*	3446N	06824*	60	GGG	2646-14250

KEYS: CLOUD COVER % 0 TO 100 = & CLOUD COVER.
IMAGE QUALITY BLANKS=BAND NOT AVAILABLE. G = GOOD. P = POOR. F = FAIR.

APPENDIX

EXPLANATION OF OBSERVATION ID

The day after the 999th day of operation of Landsat 1, the first digit of the observation ID becomes a 5, signifying that the 1000th day of operation has been reached. The next three digits, which correspond to the count of days since launch, return to 000. On each day thereafter the count, as before, increases by one. The ID format for Landsat 1 is illustrated below:

1000 - hhmmss	
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--	
1998 - hhmmss	April 18, 1975
1999 - hhmmss	April 19, 1975
5000 - hhmmss	
5001 - hhmmss (Days since launch equal 1001)	
--	
--	

The same general identification procedure will be used for Landsat 2 imagery. The day after the 999th day of operation of Landsat 2, the first digit of the observation ID becomes a 6, and the next three digits return to 000 as explained above. An illustration follows:

2000 - hhmmss		
--		
--		
2999 - hhmmss		Key: hh = hours
6000 - hhmmss		mm = minutes
6001 - hhmmss (Days since launch equal 1001)		s = tens of seconds
--		
--		